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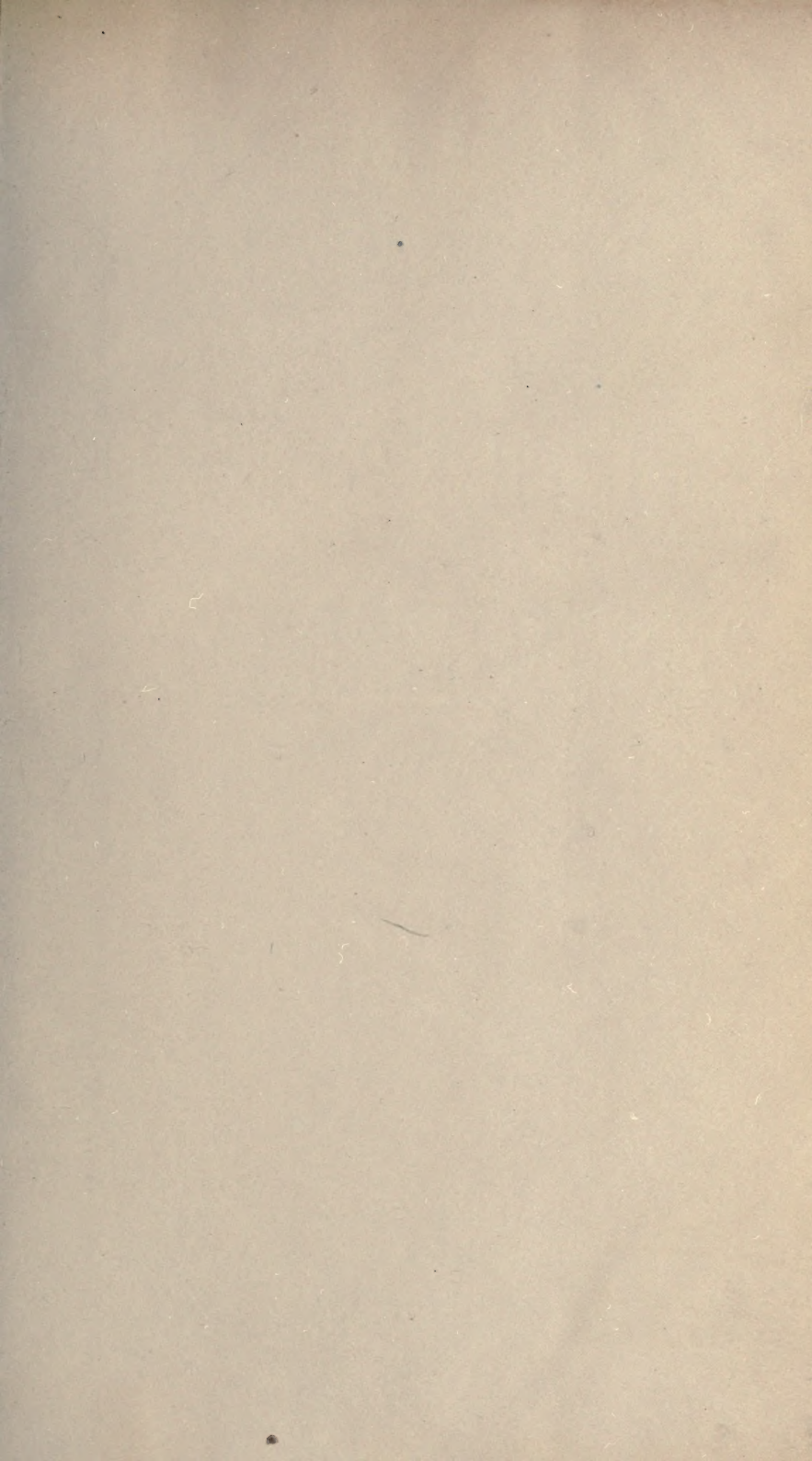




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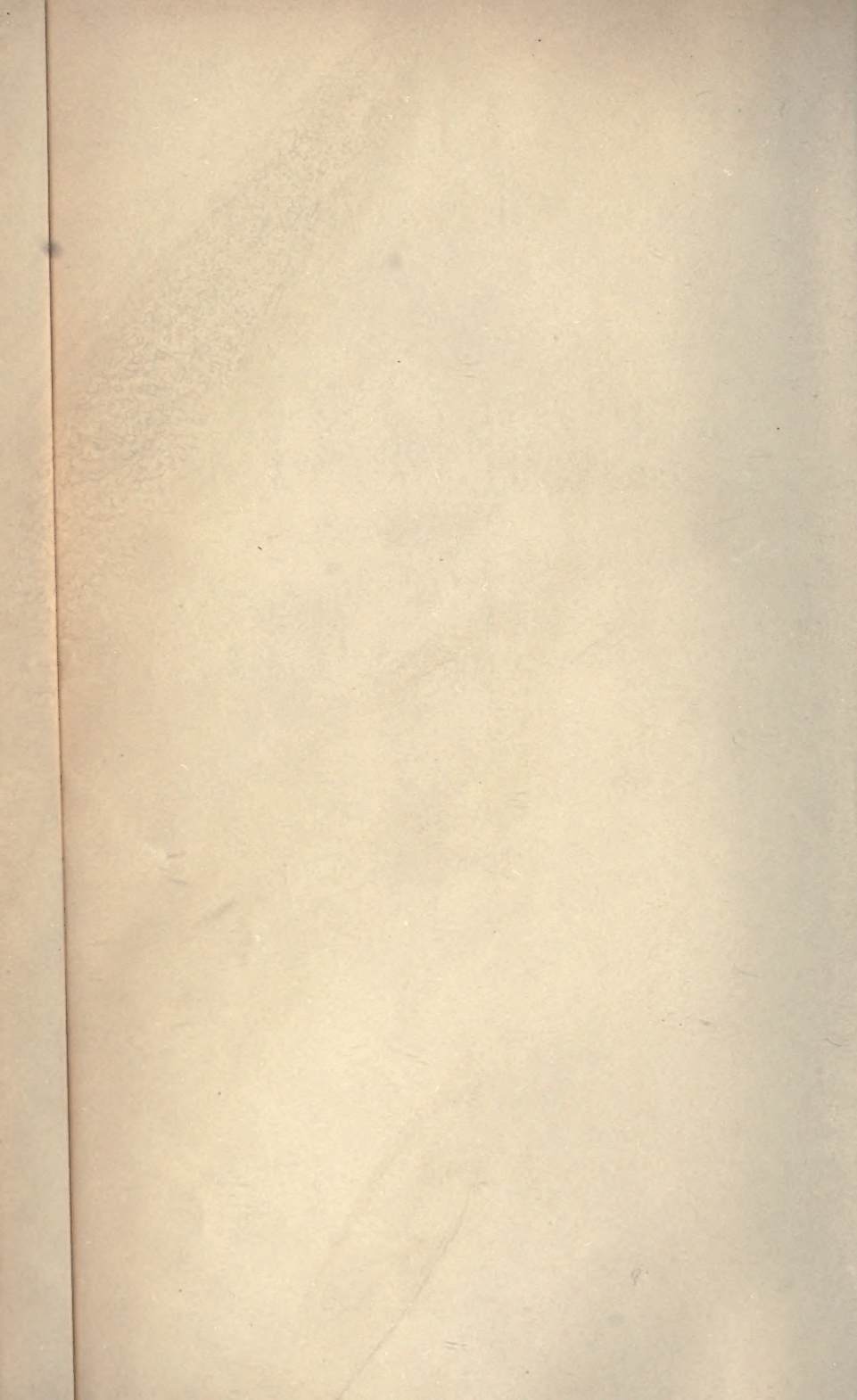
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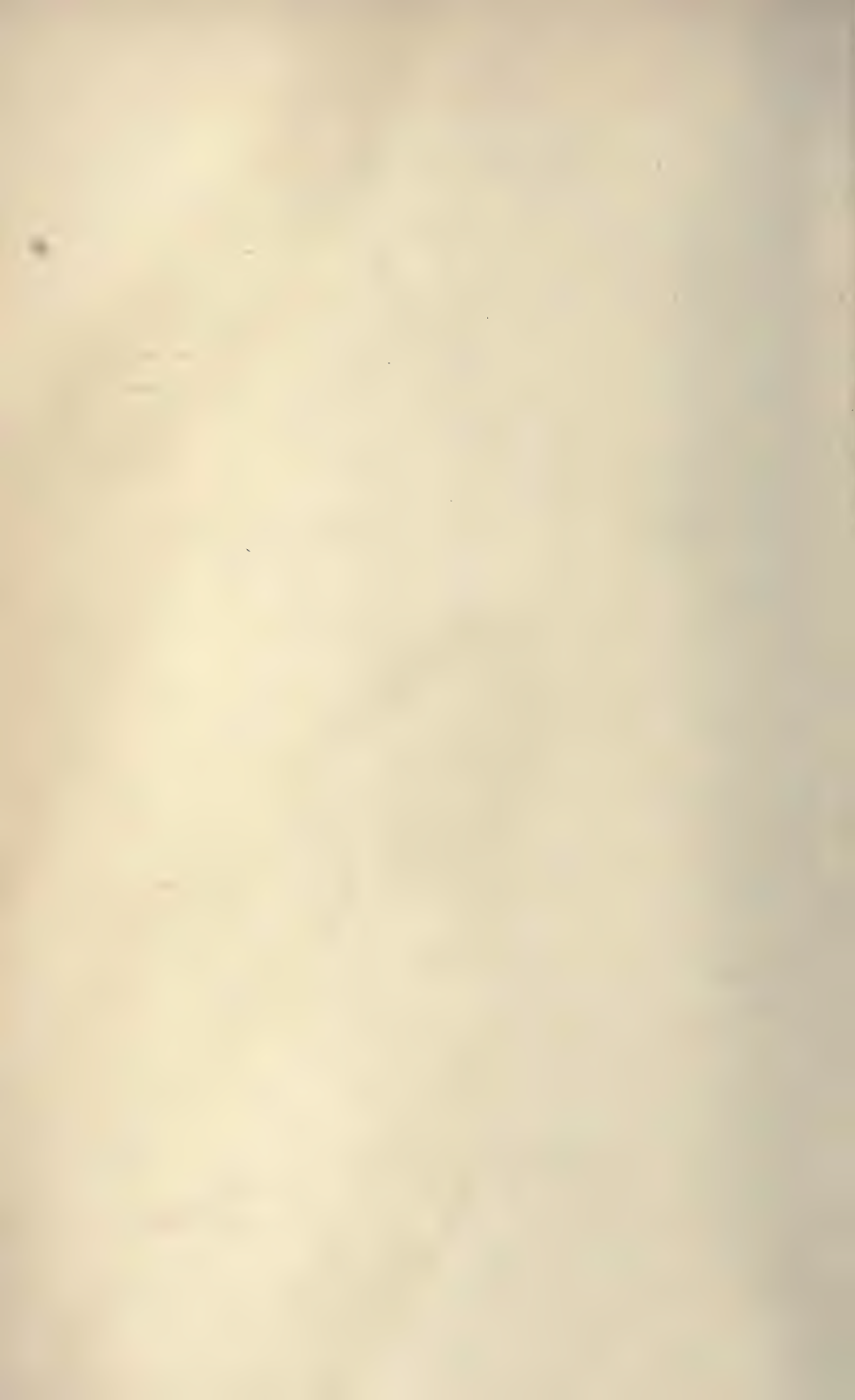
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EDUCATIONAL REVIEW

JANUARY, 1908

I

EXPRESSION IN LANGUAGE ¹

It is recorded in the biography of Robert Louis Stevenson that when he was only four years old he dreamt that "he heard the noise of pens writing." If he had survived until now it would not be in his sleep only but in his waking hours that his ears would have been filled with the noise of pens writing, with the clatter of the typewriters, and with the din of the printing press. To come forward as an author is no longer the privilege of the elect; it is now the right of the many who believe they have heard a call to take up the pen and write. We are afloat on a deluge of newspapers, of magazines, and of books;—and there is no Ararat in sight for the ark to rest on; there is no bird on the wing to bring us proof that the flood is abating.

It is small wonder that many of those who feel themselves in danger of drowning in the rising tide of printed matter are moved to protest against this incessant multiplication of books and periodicals and that some of them can not refrain from raising the danger-signal. They are properly disgusted at the temporary popularity of ill-written tales; and they see signs of literary disintegration. They are swift with shrill warnings that the standards of literature are being lowered and that we have entered upon an epoch of decadence. They cry aloud for relief; and now and again one of them ventures to suggest a remedy.

¹ Address delivered at the Convocation of the University of the State of New York, October 18, 1907.

In an address delivered in the summer of 1907 before a Western university, a New York publisher is reported to have asserted that "up to this time writing has been a harum-scarum, rough-and-tumble business, with lots of superstition and little training or experience." And then he risked the suggestion that "we must follow the example of the other crafts. Let us have post-graduate schools to teach men and women how to write." This is a plausible proposition; but it is not likely to win general acceptance. It seems to suggest that we should require the degree of Doctor of Philosophy before admission to the profession of letters, just as we now insist on the degree of Doctor of Medicine before the practise of the healing art. If this requirement had been in force in the past, it would have deprived the American branch of English literature of Aldrich and Burroughs, of Howells and Mark Twain, of Poe and Cooper, of Irving and Franklin, as it would have deprived the British branch of our literature of Bunyan and Shakspeare, to cite only two out of many.

But even if this publisher's proposed method of relief is impossible, there is a widespread acceptance of his assertion that some remedy must be found before it is too late, since the present condition is intolerable. A high official of the Education Department of the State of New York has exprest his belief that the public is now "being bombarded in magazines, novels, and scientific writings, with a vast amount of English, a great percentage of which would not be accepted in college from a sophomore." And he went on to declare that "no argument is needed to demonstrate that there has been a steady decadence of English style." In making this declaration he was voicing the opinions of many others, who stand aghast at the immense mass of trash now proffered to us on every hand.

Is this declaration justified by the facts? Is there foundation for the widespread belief that we are losing our style and that the standards of English are being lowered? That the belief itself is widespread need not prejudice us in an endeavor to answer the question. Every age has revealed a tendency to disparage itself, to look back longingly to the good old days,

to count the signs of its own decline and fall. In every age there have been shrewd observers who failed to appreciate what was under their eyes. Sir Philip Sidney, for example, express a most contemptuous opinion of the English drama just when the splendid outflowering of the Elizabethan theater was beginning to be visible. The wise and learned Guy Patin, who died in the same year as Molière, and who could have known Molière and Boileau, Corneille and Racine, believed to the end that he had lived thru an era of literary decline and sterility, altho he had survived to behold all the glories of the golden age of French literature under Louis XIV.

It may be admitted that we have not now in English literature any leaders equal in authority to the Victorian poets or to the New England group. And yet a time when the art of fiction is illumined by the works of Hardy and of Howells, of Rudyard Kipling and of Mark Twain, cannot be lightly dismiss as a period of decadence and sterility. But it is not with the chosen few that the fault is found; it is with the multitude who can prove no call to literature. Now, there is no denying that there has been of late years an enormous increase in the number of worthless books. But the real question is not whether there are today more poor books but whether there are fewer good books and whether the poor books are now more in proportion to the good books than they were once upon a time. There are more books, of course, good and bad. There are more bad books. Are there fewer good books? This is a question that no one can answer who has not been forced to a painful acquaintance with the poorer books of other periods.

Most of us recall only the masterpieces of the past; and we are prone to ignore or to be ignorant of the fact that the over-multiplication of ill-written books is no novelty, now for the first time visible. We remember Shakspeare, and we forget the main body of Elizabethan playwrights whose works are so slight in value that they are known only to special students of the period. We remember Thackeray and Hawthorne, and we forget the countless novels of their contemporaries, which have long ago been condemned to the dust-bin.

There are myriads of books of bygone generations which have sunk beneath the waters of oblivion. The good books survive and the bad go to their inexorable doom; that was what has happened in the past and that is what will surely happen in the future. The mistake we are inclined to make is due to our unintentional comparison of the picked books of the past, which we recall, with the average books of the present, most of which we should be glad to forget. Of course, this comparison is unfair to our own time. We make the blunder of thinking the distant telegraph-poles are closer together than those which we are passing now.

The proper comparison is between the average of the past and the average of the present. And it will not surprise any one who is acquainted with the more or less forgotten books of twenty and forty and sixty years ago, to be told that the average writing of today is distinctly better than the average writing of yesterday. So far from the level of style having been lowered, the standard has risen. The ability to write tolerably is far more widely spread now than it ever was in times gone by. It is not too much even to say that the ill-written books of our generation are not as defective as the ill-written books of the generation that immediately preceded ours. A comparison of the magazines of 1907 with the magazines of 1857 will show that writers of no special reputation today have a style which was the property only of the more distinguished writers of yesterday. A comparison more particularly of our newspapers with those of half a century ago will reveal a marked improvement in the use of English—perhaps nowhere more marked than in the advertising pages. Nowadays newspaper English is far more often terse, direct, vigorous, than it used to be. Nowadays magazine fiction is far more likely than ever before to display a sincere desire to deal with life honestly, to seize local color, to preserve the flavor of quaint character, to give the very form and pressure of the time. There never were so many tellers of tales as there are now who are striving to be truthful and who have acquired skill in narration and in character-drawing. Of course, there are a host of other story-writers, spinning care-

less yarns, forced in situation, false in character, maudlin in sentiment, and shabby in style. But there were in proportion just as many to be discovered in any earlier period of our literature.

The late Ferdinand Brunetière in his study of Balzac defined a good writer as one "who says all he means to say, who says only what he means to say, and who says it exactly as he meant to say it." Very few authors have ever attained to this perfection; but it is the standard to which the best writers of our time are striving more consciously than the writers of earlier eras. And the authors of our era have followed far more successfully than their predecessors of any other period that other theory of literary art which declares the true secret of good writing to consist in knowing what to leave in the inkstand. Even our inferior story-tellers are less long-winded, less tedious than the inferior novelists of other days. Beyond all question, there is plentiful bad writing now; but it is certainly not worse than the bad writing under which our fathers suffered.

Perhaps one reason why many literary critics fail to see this improvement is because they have no relish for those qualities of directness and sincerity in which there has been a distinct gain obvious to all who consider the facts with an open mind. These literary critics are looking not so much for good writing as for "fine writing." With them literature is largely a matter of words and phrases. They are seeking a sign, an outward and visible sign of literary merit, something apart from the inner and spiritual grace which gives life to a real piece of literature and which results from the subtle and perfect union of feeling and thought and knowledge. They are swift to praise mere stylists, jugglers with words, contortionists with acrobatic phrases. They are slow to discover that *Huckleberry Finn* was a masterpiece, in spite of its dialect and its low-life characters. They are interested in the mere externals of literature, rather than in the essentials,—in the rhetorical outer garment, rather than in the inner veracity that gives it vitality. They seem to think that literature can live by style alone.

For these misguided folk there is profit in citing Mérimée's statement, that Stendhal, an author of indisputable power, "despised mere style and insisted that a writer had attained perfection when we recalled his ideas without remembering his phrases." No doubt, this is a hard saying; and perhaps it may be called an overstatement. Even in workaday prose there is often an added delight in the beautiful phrasing of a beautiful thought and in the eloquent commemoration of a lofty deed. Lincoln's Gettysburg speech, for example, is more than a bald summary of obvious sentiment; it lingers in our memories because of the noble dignity of its few sentences. But even if Stendhal's remark is an overstatement it is not really a misstatement. The one necessary quality of the best writing is transparency—that electric communication from writer to reader with the least possible resistance. And this quality of transparency, of sharp clearness, is more consciously pursued today than ever before, not only by the best authors but even by the average writers of our time, by contributors to magazines and by journalists.

Yet it is only fair to say also that fine writing is not to be dismissed contemptuously. It has its uses; it is a good gymnastic; it tends to variety and to suppleness of style. Shakspeare poked fun at Lyly, the euphuist, but he profited by the flexibility which English owes partly to Lyly's trick of playing with words. Molière held up to scorn the preciosity of the Hôtel de Rambouillet, but none the less is his own use of language more exact and more precise because of their pretentious endeavors. But altho something may be said for the practitioners of fine writing, their standards are fundamentally false. They are self-conscious and affected; they are finicky and pedantic. They do not write as they speak. It is the rigid Vaugelas, the reformer of French style, who declared that "the greatest of all errors in the matter of writing is to think, as many do, that one must write as one talks."

We need constantly to remind ourselves that language was spoken long before it was written; and that the written word is only the image of the spoken word. Even now that the printing press is unresting, poetry is not possest thru the

eye alone; it is ours completely only when we take it in thru our ears and have it on our tongues. Oratory and the drama live mainly in the human voice; and on the printed page they are but half alive. The best vocabulary is not that of the library, but that of the street and of the market-place; and the best writing has the straightforward directness of popular speech. Emerson praised Montaigne for "giving to literature that which we listen for in bar-rooms, words and phrases that no scholar coined, that have neatness and necessity in the vocabulary of work and appetite." Lowell asserted that his masters in language had been boys and blackguards. And in the writing of Montaigne, of Emerson, of Lowell, we find the true ideal attained,—“The speech of the people in the mouth of the scholar.”

I assert not only my conviction that the average of literary skill is higher than it ever was before, but also my belief that no small part of this improvement is due in large measure to the increased attention now paid to English composition in our high schools and colleges and to the better methods of rhetorical instruction which are now in use. Our teaching is now affirmative and not negative as it used to be. We set students at writing about the things they are interested in; we tell them what to do and we show them how to do it; and no longer do we discourage them by focusing instruction on what they ought not to do. With a fuller understanding of the needs of these beginners and with a keener appreciation of the fundamental principles of literary art, there has resulted a relaxing of the absurd restrictions which made “school-master’s English” a by-word. Green boys are no longer set to discover the alleged blunders in Shakspeare’s style; and they are not now trained in conceit to think that they know more about English than the masters who made it what it is and gave it its richness, its variety, and its vigor. They are encouraged to say what little they may have to say in their own fashion as best they can. They are not condemned to wear the straight-jacket which the purists and the pedants have been striving for centuries to impose on our elastic and vivacious speech.

We have been making it easier for them to learn how to write and we have also been emphasizing that it is not easy to write well. Nothing is easy that is really worth while. Language is a stubborn implement, hard to wield and rebellious to the hand. In one of his note-books, Hawthorne, himself a master of style, set down his opinion that "language, human language, is but little better than the croak and cackle of fowls and other utterances of brute nature—sometimes not so adequate." But this was only a passing petulance of a great artist in letters. It was not for publication. It was the secret utterance of an accomplished craftsman, to be laughed at the first time it happened again to meet his eye. Huxley, also a stylist in his own straightforward fashion, was more nearly right when he asked, "What is it that constitutes and makes man what he is? What is it but his power of language—that language giving him the means of recording his experience—making every generation somewhat wiser than its predecessor, more in accordance with the established order of the universe.

It is language that lifts us above the brute, and if language is to be more than the croak and cackle of fowls, then it is worth our while to master it, to bend it to our use, to understand its possibilities, and to train ourselves to see in it the sole instrument for the transmission of knowledge and thought and feeling—the better instrument the more directly it is able to transmit these precious possessions. The real defect of the mass of printed matter which is bombarding us today is not to be sought in the deficiencies of style but in the defect of substance. This mass of matter seems badly written because it is empty of knowledge and thought and feeling. As Voltaire told us long ago, a man always writes badly when he has nothing to say; and that is a disability which can not be removed by any high school training in composition or by any postgraduate course in rhetoric. It is not hard to teach men and women, even boys and girls, to express what they feel, and think, and know; but it is painfully difficult to teach them to feel sensibly, to think clearly, and to know accurately. And this should be the aim not only of the teachers of English, but of all who are entrusted with the instruction of youth.

The most that the teacher of English can do is to help those to express themselves who have something to express. He can do little for those who have nothing to express—except possibly to make them understand that it is impossible to pour out a full measure from an empty vessel.

It was the shrewd Bagehot who asserted that the real trouble with books was to be ascribed to the two facts that most of those who could write did not know anything and that most of those who knew things could not write. This second group, those who have something to say which they don't know how to express,—these the teacher in English can help. But the first group, those who already know how to write but have nothing to say,—who is to help them? And how are they to be helped? One thing at least we can tell them,—that the art of expression is useless if they have never anything of value to express. We can once more call their attention to the duty of their opening their eyes to the life about them and the possibility that by laying firm hold on this they may acquire the feeling and the thought and knowledge without which the finest words are empty and idle.

BRANDER MATTHEWS

COLUMBIA UNIVERSITY

II

LEGAL REGULATION OF MINIMUM SALARIES FOR TEACHERS

Among the important legislative measures recently past in several states of the Union are certain acts regulating the minimum salaries of public school teachers and known as minimum salary laws. Some of these establish a single minimum salary, others a simple schedule of minimum salaries corresponding to a simple series of qualifications, and still others an elaborate schedule corresponding to small variations in the general qualification determined by a number of specified qualities and factors. It should be recognized, moreover, that forms of legal regulation are in existence which are not classed as minimum salary legislation, but which virtually come under this head. It is the purpose of this study to consider the present status of such legislation in our country.

The situation in foreign countries

A brief preliminary survey of the situation in those foreign countries which lead in education will be profitable. According to data and information made available within the last few years the regulation of the salaries of teachers by law in such manner as virtually to establish minimum salary schedules is a settled policy in certain European countries among which are France, Germany, and Sweden. Such laws have not been in operation in England. It is worthy of note that France and Germany, which are far in the lead in education, likewise take the lead in the matters of placing the compensation of teachers on a stable basis and of setting the limits below which no amount of false economy may reduce it. In these two countries teachers are civil officers responsible to the state, and as such they are paid definite salaries by the state. These

constitute the legal minimum salaries. In addition to them the communities are privileged to pay such local salaries as they are able or as they choose, a privilege of which the larger communities are glad to take advantage, particularly in Germany, in order to secure the services of superior talent. In Prussia, which constitutes two-thirds of the German Empire, if no recent alterations have been made, the minimum salaries of regular men teachers in the elementary schools for the masses vary from \$180 per year to something over \$400 according to length of service and rank.¹ Those of women, who comprise a small proportion of the teachers of Germany even in the elementary schools, are fixed at figures somewhat lower. In 1905 the salaries of regular men teachers in the French schools for the masses, the elementary primary schools, and the superior primary or high schools, varied from \$200 to \$400 per year in the former and from \$400 to \$600 in the latter, likewise according to length of service and rank.² As in the case of Prussia the salary schedules for women in the same schools are somewhat lower. In both countries the compensation of the teachers in the schools for the classes, of which the gymnasia in Germany and the lycées in France are the best known types, is also fixed at minimum figures by salary schedules established and paid by the state. The same is true of the compensation of all directors or principals. In both cases the salaries are of course made decidedly better than those just given.³ Before passing judgment upon the adequacy of these minimum salaries of France and Germany several facts should be taken into consideration. The following are the chief of these. (1) The standard of living is distinctly lower in France and Germany than in the United States. (2) Teachers in both countries in accordance with law are provided by their communities with free residences or the equivalent in money, in addition to their

¹ C. B. Dyke in *Economic aspects of teachers' salaries*, 1899, p. 23. (Columbia University Contributions.)

W. S. Monroe in *Journal of education*, 1905, 62, p. 240.

² Report of U. S. Commissioner of Education, 1905, Vol. I., p. 66.

³ See Secondary School System of Germany, by Frederick E. Bolton, p. 119 ff.; and Report of U. S. Commissioner of Education, 1905, Vol. I, p. 79.

salaries. (3) Those teachers who withdraw from the service after a specified time by reason of ill health or age or other disability are legally entitled to substantial pensions the amount thereof varying with length of previous service and other considerations, and on the death of a teacher his widow and children are pensioned according to fixed regulations. In this connection we should take note of the fact that the legal provisions for free residence or the money equivalent and for pensions partake of the nature of legal regulation of the minimum compensation of the teachers. The money equivalent of the free residence may with perfect propriety be added to the minimum salary schedules throughout, which would increase them from ten to twenty per cent., but strictly speaking the pensions are not salaries. In our country at present the writer believes pensions for teachers would more correctly be considered a system of rewards and gifts bestowed upon certain deserving individuals partially from charitable motives. Such a statement is much less applicable to the pensions in France and Germany, however, for in these countries civil servants in general are pensioned by the state according to prescribed rules upon retiring from the service.

Minimum salary legislation in the United States

The present status of minimum salary legislation in the United States was accurately ascertained by means of a brief questionnaire sent from the State University of Iowa in May, 1907, to all the state departments of education, together with subsequent correspondence and investigation in the light of the returns. Replies were received from all the state offices with one exception. From the data thus secured it was found that minimum salary laws of varying form and scope are in operation in a considerable number of the states.

The first state to fix a minimum salary for the teachers of its public schools was West Virginia. With reference to the history and present status of such legislation in West Virginia the state superintendent writes:

"By reference to the code I find that on March 15th, 1882, a bill was past by the legislature as follows: 'Teachers having

certificates of the grade of number one shall be paid not less than twenty-five dollars per month; those holding certificates of the grade of number two, not less than twenty-two dollars per month; and those holding certificates of the grade of number three, not less than eighteen dollars per month.'

"Since that enactment this provision has been amended twice, and minimum salaries, as now fixed, are: \$35, \$30, and \$25, respectively for first, second, and third grade certificates. While, of course, this provision applies to the entire state, it does not affect more than 20 per cent. of the school districts, and the measure was first enacted to protect the school interest of communities where the idea of economy seemed to be too dominant. In these places the law has had a good effect, and, in fact, its influence has been helpful even tho the minimum has been low."

In 1903 the legislature of Indiana past a minimum salary law somewhat unique in form. It provided that the daily wages of all teachers should not be less than an amount determined by multiplying two and one-fourth cents, two and one-half cents, or two and three-fourths cents, according to amount of previous experience, by the general average of scholarship and success given on the highest grade of license at the time of contracting. In 1907 a new law was past to replace this one and to go into effect August 1, 1908. It provides, quoting from a bulletin issued by the state department of Indiana in March, 1907, "that the daily wages of beginning teachers shall be not less than an amount determined by multiplying $2\frac{1}{2}$ cents by the general average of such teachers in their highest grade of license at the time of contracting; that the daily wages of teachers with a successful experience of one school year shall be not less than an amount determined by multiplying 3 cents by the general average; and that the daily wages of teachers with a successful experience of three or more years shall be not less than an amount determined by multiplying $3\frac{1}{2}$ cents by the general average." It also provides, as does the law now in force, that two per cent. be added to the general average of every teacher who attends the county institute the full number of days. As-

suming that the usual system of grading is in use in Indiana, this law fixes the high-water mark in minimum salary legislation in the strict sense up to the present time. The law fittingly supplements the above provisions by providing in other sections that graduation from an approved high school or the equivalent and at least twelve weeks' professional training in an institution maintaining approved courses shall in the future be prerequisites for entering the teaching profession in Indiana; and further that the promotion of teachers from this lowest class to the second class, or from the latter to the third or highest class shall be conditioned upon securing a prescribed amount of additional training. As the law has been interpreted teachers of the highest class must have secured the training represented by or equivalent to graduation from a standard three-year normal school. Penalties are provided for failure to carry out the provisions of the law. It is the opinion of the state department of Indiana that this law of 1907 in connection with certain accessory laws is the greatest step forward ever taken in the educational history of the state.

In New Jersey a law was enacted in 1903 which provides an elaborate minimum salary schedule that may be adopted in any municipality of the state by a referendum vote. After such adoption it becomes legally binding. Minimum salaries are specified for teachers and principals of all grades and classes in all the different grades of schools. They vary not only with grade and position, but also with experience and success, and in the case of high school teachers with sex. The minimum salaries are liberal. Thus those for kindergarten, primary, and grammar school teachers vary from \$408 to \$936 per year, those for principals of primary and grammar schools vary from \$1,200 to \$2,500 per year, those for high school teachers vary from \$700 for women without experience to \$2,400 for men with nine or more years' experience, those for high school principals vary from \$2,500 to \$3,000, and so on thru the remainder of the list. State Superintendent Baxter writes that only the cities of Newark and Jersey City had adopted this minimum salary schedule up to June, 1907.

Another minimum salary law was enacted in 1903 in Penn-

sylvania. It went into effect in 1904. By its provisions the minimum salary of the public school teachers of the state was made thirty-five dollars per month, and any district failing to comply with the law was deprived of its allotment of the state appropriation. In 1907 this law was repealed and a new one was substituted for it which took effect on June 1, 1907. The new law reads in part as follows:

"Section 1. That from and after the passage of this act, the salary of common school-teachers, in districts of this Commonwealth receiving State appropriation, shall be no less than fifty dollars per month in all cases where the teacher holds a professional, permanent, or normal school certificate, and has had two years practice, and presents a certificate of proficiency in said practice, for said time, from the superintendent in charge of said teacher.

"Section 2. That the minimum salary shall be forty dollars for all teachers holding certificates of less grade than required under section one of this act. And that the State shall pay the amount of increase in all salaries that are provided for under this act, and over the amount of salary paid in each school district in this Commonwealth in one thousand nine hundred and six, and said increase shall be paid out of the increased appropriation for the common schools."

The law goes on to provide in detail for carrying out these provisions, requiring school officers to certify certain facts under oath to the state superintendent, etc. As already noted this law is now in force.

Maryland was in 1904 the next state to enact a law of this kind. It reads as follows: "The salaries of the teachers of each county shall be fixt by the Board of County School Commissioners; provided, that no white teacher regularly employed in a Public School of the State of Maryland, having an average attendance of fifteen pupils or more, shall receive as a salary less than three hundred dollars per school year."

In 1905 the Legislative Assembly of North Dakota past a minimum salary law. It provides that the district school board of every district "shall grade the salaries of teachers for the district in accordance with the grades of certificate and no

teacher holding a certificate of a lower grade shall receive a salary equal to or in excess of that paid to a teacher holding a certificate of a higher grade in the same district; provided, further, that no teacher holding a second grade certificate shall receive less than forty-five dollars per month on and after the passage and taking effect of this act." State Superintendent Stockwell writes that after January 1, 1908, no third grade certificates will be issued in the state, and that after that date the minimum salary will be forty-five dollars per month, that fixt for holders of the second grade certificate. In grading salaries the state certificate ranks above the county certificates.

The next state to catch the contagion was Ohio, where in 1906 the Duvall law was past. Following is the full text of it:

"Be it enacted . . . Section 1. That no person shall be employed to teach in any public school in Ohio for less than forty dollars a month; and that, when any school district in Ohio has not sufficient money to pay its teachers forty dollars per month for eight months of the year, after the board of education of said district has made the maximum school levy authorized by law, three-fourths of which shall be for the tuition fund, then said school district is hereby authorized to receive from the state treasury sufficient money to make up this deficiency. Any board of education having such a deficit shall make affidavit to the county auditor, who shall send a certified statement of the facts to the state auditor. The state auditor shall issue a voucher on the state treasurer in favor of the treasurer of said school district for the full amount of the deficit in the tuition fund.

"Section 2. No district shall be entitled to state aid, as provided in section one of this act, unless the number of persons of school age in said district shall be at least twenty times the number of teachers employed in said district.

"Section 3. All acts and parts of acts inconsistent herewith are hereby repealed."

The last state down to the present to provide itself with this type of legislation was North Carolina, where in 1907 it was decreed by legislative authority that the minimum salary of all teachers holding state certificates should in future be thirty-five

dollars per month, and that the minimum salary of all teachers employed in the new county public high schools established by legislative action in 1907 should be forty dollars per month. To North Carolina, it may be added, belongs the distinction of having a maximum salary law. This provides that teachers holding first grade county certificates may receive such compensation as shall be agreed upon, teachers holding the second grade certificate shall receive not more than twenty-five dollars per month out of the public fund, and teachers holding the third grade certificate shall receive not more than twenty dollars per month. It also directs that "no third grade certificate shall be renewed and no holder of a third grade certificate shall be employed except as assistant teacher." These provisions are certainly suggestive of the possibility of some good features in the maximum salary law.

In some states a certain part or proportion of the school funds expended is required by law to be used for teachers' salaries. These provisions have reference variously to state, county, and local funds. Such laws may be considered minimum salary legislation in states where the actual minimum salary paid is evidently higher than it would be were these restrictions not placed upon the expenditure of the funds. Laws in California, perhaps in Oregon, and possibly in a very few other states may be placed in this category from this point of view. In California all of the state fund and sixty per cent. of the county fund must be used for the payment of teachers. The state superintendent writes: "This really fixes a minimum, as I can not see how the salary could fall below \$60 a month." No other state maintains so high a minimum, and on this basis California virtually if not strictly takes the lead in minimum salary legislation. Part of the California legislation along this line was enacted in 1907. Regarding the situation in Oregon the writer can not speak more definitely than to quote the following from the state superintendent's reply: "By an enactment of 1907, 85 per cent. of the money that a district receives from the county tax and the state fund must be spent for teachers' salaries." Whether this may be classed as minimum salary legislation on the above terms depends upon the effect

it has upon the actual minimum salary. It is to be hoped it may be so classed.

In New York there is a special minimum salary law which applies only to the teachers of New York City. Tho purely local in its effect it is advisable to give extended consideration to this law in this connection for two reasons, (1) the school population, the teaching force, and the total population of New York City are greater than those of a considerable majority of the states, and (2) this measure gave New York City, in recent years, the highest schedule of teachers' salaries paid in any city or state in the world.⁴ That this distinction resulted from the law is evidenced by the facts that it produced an immediate substantial increase in salaries and that the salaries paid since its enactment have closely corresponded to the minimum schedule provided by it. The new order was instituted by the passage of the Ahearn law which went into effect in 1899. This law was amended in numerous respects the next year by the Davis law, and still other amendments followed in subsequent years. In form the New York schedule resembles that provided by the New Jersey law of 1903, which was undoubtedly patterned after it more or less. It provides minimum salaries for practically all persons employed in the New York City schools as teachers or supervisors in any capacity. They vary according to success, position, rank, length of service, and sex. As the law stands at present the minimum salaries per annum of women kindergarten and elementary school teachers below the grammar grades vary from \$600 to \$1,300, those of women teachers in the grammar grades, the seventh and eighth, vary from \$600 to \$1,500, those of men teachers in grammar grades vary from \$900 to \$2,400, those of regular or assistant women high school teachers vary from \$1,100 to \$1,900, those of regular or assistant men high school teachers from \$1,300 to \$2,400, those of women head or first assistant high school teachers from \$2,000 to \$2,500, those of men head or first assistant high school teachers from \$2,500 to \$3,000, those of principals of the larger elementary schools are, after ten years of successful service, \$2,500 in the case of

⁴ EDUCATIONAL REVIEW, 1899, 18, p. 98.

women and \$3,500 in the case of men, those of principals of the larger high schools are \$5,000, and those of teachers and supervisors in the training schools for teachers are the same as those of individuals holding corresponding positions in the high schools. The law provides equally well for various other grades and sorts of assistants, teachers, and supervisors, but the preceding account must suffice. The law is much strengthened by other legal provisions which make the tenure of office of the teachers permanent during efficiency and good conduct.⁵ Barring such contingencies as the abolishment of unnecessary positions, teachers of New York City can be removed only for good and sufficient cause. No remarks are needed to impress upon teachers the excellence of the preceding salaries and the value and power of the law which establishes them. In 1907 a bill was past by the New York legislature and repast over the veto of the mayor of New York City providing that the minimum salaries of all women teachers in that city doing the same work as men teachers be made equal to those of the men. The bill was also vetoed by Governor Hughes and was then dropt. The chief of the law division of the New York State Education Department, Mr. Thomas E. Finegan, writes that the principal ground upon which the bill was vetoed was that the board of education of New York City possesses the necessary power to establish equal salaries if the conditions warrant their establishment.

Finally the salaries of teachers in the District of Columbia are all fixt by Congress. This means in effect that minimum salaries are there established. For a long period they were decidedly inadequate for the capital city of the nation, but in 1906 a new law was past which liberally increased them so that now they compare favorably with those paid in other large cities of the country.⁶

Prospects for the future

From the preceding account it appears that nearly a dozen of our states have minimum salary laws of some sort. While it

⁵ Wm. H. Maxwell in *Journal of education*, 1903, 58, pp. 255 and 256.

⁶ *Journal of pedagogy*, 1906, 19, p. 2.

sets forth the actual status at present of legal regulation of the minimum salaries of teachers in the United States, all has not yet been said. Another inquiry in the questionnaire sent to the different state departments asked information with reference to the matters of present agitation along this line and prospects for legislative action. It was ascertained that minimum salary bills which failed either of final consideration or of passage were introduced into the last legislatures of at least five states, Illinois, Michigan, South Dakota, Wisconsin, and Missouri. In all probability the contest will be renewed in these states in future legislative sessions. It was further ascertained that in about a dozen other states having no minimum salary laws there are prospects for the enactment of such laws in the future or there is more or less agitation looking toward that end. Something of the sentiment in the latter states is shown by the following extracts from answers to the questions above indicated. From Virginia comes the word, "We hope so, the State Teachers' Association has taken the matter up"; from Massachusetts, "There is lively agitation over the state as to teachers' salaries"; from Kentucky, "There is, and we hope our next legislature will act in this matter"; from Florida, "Not to any extent, but I am of the opinion that such a law will have to be enacted before long"; from Kansas, "The former administration made some agitation along the line of minimum salaries, but without any results thus far"; and from Idaho, "I shall make it my endeavor to bring this before the Idaho legislature in 1909."

After having fully reviewed the actual situation it is wholly needless to say that the legal regulation of the nether limits of teachers' compensation has gained a firm foothold in American education. We can judge of its future only from past experience and present indications. And so when we remember that this movement has been one of rapid and consistent growth and has attained its greatest and a respectable momentum at the present time; when we consider that its progress has not been blocked by a single backward step on the part of any state that has tested minimum salary legislation, but rather has been considerably accelerated by the action of several of these states

in establishing higher minimum salaries; and when we reflect that future legislative bodies must strongly feel the influence of its momentum and of other forces now present in the country that are directed toward its advancement, we are justified in predicting that minimum salary legislation in different forms will constitute an important tho small part of the wealth of educational legislation which is certain to be enacted in the coming years as an essential feature of the splendid future which is opening up for education. It seems certain that state regulation of teachers' compensation by fixing proper limits below which, to use a previous expression, no amount of false economy can reduce it, paralleling the history of compulsory education and other movements, will become quite common in our country before many years. It will not become universal, however, even tho the educational ideals or sentiments of which is it the expression become universal, for the chief ends it is designed to secure may be attained more or less effectively by other means. While it is certain that the system of state regulation of teachers' salaries inaugurated in this country in West Virginia twenty-five years ago is a permanent fixture in American education, its finally adopted form or forms will probably be more or less different from any minimum salary law with which we are acquainted. There is room for a considerable development along this line, for our present legislation with its various forms is experimental and crude. Such a development will occur, and indeed is now in the early stages of its progress. Its course and products will be determined by the experience of the future.

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III

IS MENTAL TRAINING A MYTH?

Two college professors were dining with a business man. One, certainly, of the professors possess excellent talents, which had received the benefit of whatever training comes with years spent in the pursuits of the scholar. The host, tho an intelligent man, made no pretensions to the discipline of the schools. His hobby was a large collection of puzzles. The ability with which he handled these, the comparative ease with which, as it was learned, he had solved them at first, were in striking contrast with the bunglings of these scholars, who were almost as helpless before the puzzles as their friend would have been in the face of a page of Cæsar or an example in quadratics.

But this suggested an annoying question. These two, who had given years to the training of their minds—who had devoted themselves to the occupations supposed to yield mental power—were, when called on to use that power in a new direction, badly beaten by a man that laid no claim to this boasted training. His training in puzzles, it seems, had given him puzzle-power; their training in scholarship had given them certain scholarship-power. Was that all? Had the effects of the training in either case extended beyond its own province? In other words, does the training involved in the study of any subject give greater power in that subject alone, or does it increase mental power in general? Is mental training a myth?

My inquiry is into a profoundly practical question in education—practical, because it concerns a conception tremendously influential on the practise of professional educators; profoundly so because that conception stretches its roots, far below the foundations of any reasoned theory, into the very soil of popular assumption.

Next to truth itself, nothing is so immortal as an assumption incarnated in an unconscious metaphor. As old as Isocrates

at least, possibly as old as the dawn of reflection on teaching, is the gymnastic conception of education. Thru the centuries the sway of this conception has been almost uninterrupted and undisputed. Men speak of exercising the limbs of the body and the faculties of the mind with equal freedom from suspicion of figurative language.

The responsibility for this view rests largely on the so-called "faculty-psychology." Recall, from James Lane Allen's story, the lovable old parson and philosopher "kneeling down every morning and praying that during the day his logical faculty might discharge its function morally, and that his moral faculty might discharge its function logically, and that over all the operations of all his other faculties he might find heavenly grace to exercise both a logical and a moral control; at night kneeling down again to ask forgiveness that, despite his prayer of the morning, one or more of these same faculties—he knew and called them all familiarly by name, being a metaphysician—had gone wrong in a manner the most abnormal, shameless, and unforeseen."

As the body is composed of members, so the mind is conceived as made up of substantive entities called faculties, such as memory, imagination, and reason, each performing functions as distinct and as independent as those of the eye and the ear, each, to quote, "regarded as an agency or condition, producing its own special manifestation, and interacting with other faculties similarly conceived as agencies or real conditions." Not that it is usual to hold the theory so explicitly and consistently as the metaphysical friend of the story. On the contrary, it was the proper thing, till recent years, for the author of a "mental philosophy" to make a preliminary disavowal of any such view, and then straightway assume it, tacitly and unconsciously, as the standpoint of his whole treatment; somewhat after the manner of the man who, having declaimed on the insignificance of clothes, pays deference to the next well-dressed stranger.

But whatever has been thought by psychologists, one has only to read discussions of education, past and current, to see that, in the mind of intelligent men generally, the implications

of this faculty-psychology underlie all theories of education. If memory, for instance, is a separate faculty, why can not it be trained by exercise just as the arm can? And, further, as training with dumb-bells produces strength which may be used for any purpose, so why does not the training acquired in mastering a Latin paradigm or memorizing Gray's *Elegy* provide memory with greater power over the list of the presidents, a page of Eliot's Indian Bible, the errands uptown for our wives, or any other matter whatsoever with which it may be entrusted?

Reduced to a formula, the gymnastic theory of education is this: The exercise of any faculty of the mind results in increasing the general power of that faculty. This exercise and its result we commonly call mental discipline or training.

Applications of these doctrines are familiar. Some one has said that England is the place that good German philosophies go to when they die. It must be confessed with shame that pedagogy has sometimes proved a hope for dying, a heaven for dead, theories in psychology. And so, while this faculty-theory is being decently buried by the psychologists themselves, it wears a crown of glory in certain pedagogical text-books, thru whole chapters on the training of the faculties. The memory, the reasoning powers, and the imagination must be put each thru its own paces; and special cultivation must be bestowed on the observing faculty, lest, for instance, the rising generation grow up in disastrous ignorance as to "how a cow lies down or how a horse gets up."

The application is extended to the subject-matter of education. For generations, the chief ground alleged for the place of certain studies in the curriculum has been their training or disciplinary value. A type of this view is found in the utterance of Thornwell: "When, therefore, the question is asked, as it is often asked by ignorance and empiricism, what is the use of certain departments of the college curriculum, the answer should turn, not upon the benefits which, in after life, may be reaped from these pursuits, but upon their immediate subjective influence upon the cultivation of the human faculties." Or take the declaration of Sir William Hamilton, that "knowl-

edge (man being now considered as an end to himself) is only valuable as it exercises, and by exercise develops and invigorates the mind." Of our contemporaries, President Woodrow Wilson represents a host, when, after speaking of the "disciplinary studies," he adds "The mind takes fiber, facility, strength, adaptability, certainty of touch from handling them when the teacher knows his art and their power."

All our courses of study rest, for justification, on two pillars, knowledge-value and disciplinary-value; and, until recently at least, the heavier load has been supported by the latter. If this doctrine should turn out to be a mistake, it would seem at first sight that our whole educational structure would simply have to be torn down and rebuilt. Is it not, then, worth our while to inquire whether the doctrine is true, or is false, or, tho neither literally true nor utterly worthless, does stand in sad need of restatement?

Is the doctrine true? The almost catholic consensus of educational thinkers answers, "Yes." Modern psychology is coming to say, "No." What pretexts does it offer for its hardihood?

It is important that there be no mistake as to the exact issue. The affirmative holds that the exercise of any faculty of the mind results in increasing the general power of that faculty. The dissenters maintain that, while the performance of a certain process renders easier the repetition of that same process, it does not increase the power of the supposedly same faculty to perform processes that are different. Or, to take an example, practise in remembering one class of facts would have no effect whatever on the ability of memory for an entirely different group of facts. One might memorize pages of logarithmic tables without any improvement in his memory for lists of Sanscrit words.

Such is the dissenting contention. What are the grounds for it? I can state only some of them.

In the first place, the gymnastic theory involves that faculty-psychology which the modern psychologist, bound to report only such facts as he finds, can hardly bring himself to conceive as possible. Of course, if the word "faculty" were employed

merely as a term of classification, there would be no great harm. It would not be more objectionable, for instance, to use the word memory as a name for the common element in all acts of remembering than to use the word fluction for what is common to all acts of flowing. But it would be no more groundless to speak of fluction as a thing which can be exercised, improved, strengthened, than to speak of memory as a real force or cause. If water has flowed along a certain track in my back yard, the facility of the flow in subsequent rains is increased; but we do not take that as evidence of the strengthening of any mysterious force called fluction. Likewise, while it is a fact of observation that, if one process of consciousness has followed another, the facility of the sequence increases with the frequency; yet we are not justified in inferring the augmentation of a mysterious force called memory. To say that this particular succession makes easier the formation of unrelated successions would be as baseless as to hold that the washing of a gully in my back yard expedites the current of the Brahmapootra. The vice consists in gratuitously reifying a mere abstraction.

In short, the process of remembering is always the revival of an association between specific images, and each repetition of the process improves that particular association alone. Instead of a memory, we have, as one has said, a thousand memories; and a corresponding remark may be made of each of the alleged faculties.

In the second place, this conclusion is confirmed, in the main, by what is known of the relation between consciousness and brain action. It is true, indeed, that some brains seem naturally to have greater plasticity than others, and that their possessors remember better in general; but this general plasticity seems to be beyond our control except so far as it is influenced by the health of the body; so this fact would have no weight as an objection.

Now coming first to the modern discoveries of the localization of function, we find the results decidedly opposed to the gymnastic theory. Phrenology, indeed, was the child of the faculty-psychology. The bumps in its charts represented

faculties—memory, imagination, etc. The scientific mapping of the brain, on the contrary, is entirely different. Here each region corresponds, not to a general faculty, but to some sense-organ or group of muscles. One area, for instance, is devoted to the sense of sound. Destroy that, and you destroy at once the possibility of all sensations, perceptions, memories, imaginations, and reasonings in which sound is involved. But the loss of the faculty of imagination, say, for sounds does not result in the loss of the imagination for sights. The two imaginations seem to be quite independent. The plan of the brain, then, seems hardly consistent with the existence of any general faculties as that term is understood. Since the training of each faculty would involve all these areas, it is hard to conceive how there could be a training of one faculty as distinct from the training of another.

Further light may be gained by inquiring what takes place in the brain while there is going on, in consciousness, an action, for example, of the so-called faculty of memory. Now while there are differences of detail, there is, I believe, practical agreement among expert psychologists that, when an association is first formed in consciousness, there occurs correspondingly in the brain the opening up of some sort of connection between specific cells or groups of cells; that when we remember anything, there is, in some way, a retraversing, by nervous force, of the tract thus opened; that each passage along that tract increases its perviousness and thus renders firmer this particular memory or habit. Here, as in the case of association on the mental side, the connection is between a specific pair. For instance, for the first time I see the animal *paca* and hear its name. The sight of the animal, it is supposed, sets to tingling a group of cells in my visual area; the sound of the name starts auditory cells at the same time. The simultaneous excitement, in some unexplained way, opens, between the groups, a path for nervous force. When next the same sound excites the auditory cells, the excitement travels along this path to the visual cells, and I have an image of the animal. The oftener this process takes place the more unfailling does it become; that is, the better is my memory on this point: but

how the opening of these passages—the deepening of these channels—tends to make or improve channels in other parts of the brain, can be understood only by one who is able to trace the relation between the aforesaid gully and the aforesaid Asiatic river.

It would seem, then, that the gymnastic theory is antecedently improbable, nay, almost impossible. But the dissenters go further and declare that this conclusion accords with the facts of observation and experiment.

But first let us see exactly the point to be tested. If I have broken a path through the weeds, I can cross that field more easily thereafter. This fact does not mean that the muscles of my legs are bigger than before, but simply that I am using the same path again—not that I have more strength to work with, but that there remains less work to do. And so, with the mind, there is a great difference between increasing a general power and increasing facility by using acquirements already made. If a student has mastered the forms in one Latin grammar, does the ease with which he memorizes the etymology of a second grammar prove greater memory-power, or does it suggest that he is using previous acquirements—is traveling along already opened paths of association? And so the proposition which the experimenters propose to test is this: “A change in one function alters any other only in so far as the two functions have as factors identical elements.”

On some phases of the question, experiments are not so numerous as might be wished; but, of those that we have, the results in the main support the proposition. I can give only a few specimens. The following is from Professor James of Harvard: “I have tried to see whether a certain amount of daily training in learning poetry by heart will shorten the time it takes to learn an entirely different kind of poetry. During eight successive days I learned 158 lines of Victor Hugo’s *Satyr*. The total number of minutes required for this was 131 5-6. . . . I then, working for twenty-odd minutes daily, learned the entire first book of *Paradise lost*, occupying 38 days in the process. After this training I went back to Victor Hugo’s poem, and found that 158 additional lines (divided

exactly as on the former occasion) took me 151 1-2 minutes. In other words, I committed my Victor Hugo to memory before the training at the rate of a line in 50 seconds, after the training at the rate of a line in 57 seconds." Professor Thorndike states that "careful tests of one individual and a group test of students confirmed Professor James' result."

An investigation of a different kind is reported by Dr. Bagley of the State Normal College of Montana. At his institution, he says, "careful experiments were undertaken to determine whether the habit of producing neat papers in arithmetic will function with reference to neat written work in other studies; the tests were confined to the intermediate grades. The results are almost startling in their failure to show the slightest improvement in language and spelling papers, altho the improvement in arithmetic papers was noticeable from the very first."

Professors Thorndike and Woodworth performed an elaborate series of experiments to determine the effect that the practise of one function would produce upon more or less related functions. Here is, perhaps, the simplest specimen:

"Individuals practised estimating the areas of rectangles from 10 to 100 sq. cm. in size until a very marked improvement was attained. The improvement in accuracy for areas of the same size but of a different shape due to this training was only 44 per cent. as great as that for areas of the same shape and size. For areas of the same shape but from 140-300 sq. cm. in size the improvement was 30 per cent. as great. For areas of different shape and from 140-400 sq. cm. in size the improvement was 52 per cent. as great."

In the opinion of these authors, their experiments show, among other things, that—

"Improvement in any single mental function need not improve the ability in functions commonly called by the same name.

"Improvement in any single mental function rarely brings about equal improvement in any other function, no matter how similar, for the working of every mental function-group is conditioned by the nature of the data in each particular case.

“The general consideration of the cases of retention or of loss of practise effect seems to make it likely that spread of practise occurs only where identical elements are concerned in the influencing and influenced function.”

Of the facts of common observation, many might be cited to support the newer view. On the other hand, it will be claimed that some directly contradict it. Is the new doctrine, it will be asked, so blind to experience as to deny the possibility of mental training and the value of certain studies? In reply, I assert my belief that, as literally stated, the dogma of formal discipline is untrue. Most commonplaces, as Professor Barrett Wendell says, have a comfortable basis of fact. Such was the case, for instance, with the naïve ante-Copernican theory of the universe. At least 90 per cent. of the facts which it attempted to account for were real facts. Yet no one doubts that it was a great achievement to substitute for it a statement which is true for all the facts. And so this doctrine of formal discipline is the naïve and crude and untrue attempt to formulate certain indubitable matters of experience. Merely repeating my thesis should be a sufficient answer to all objections. I hold that the performance of one mental process improves any subsequent process just so far as these two processes have elements in common (and no further). This will explain, for instance, how the practise of verbal memorizing, while not strengthening any general power of memory, may, by storing up a stock of words, phrases, idioms, sentence-rhythm, meanings, and so forth, add greatly to the efficiency in learning the same composition, less in learning other compositions of the same kind, still less in learning those of a different kind, and none whatever in learning entirely unrelated things. That is, we are helped if we can find old elements in the new matter.

Again, this explains how performance in remembering may be greatly increased by method; for the method itself consists in the formation of specific associations and habits.

Likewise it is quite consistent with our thesis that certain studies, more than others, do leave a pupil efficient for future accomplishments apart from the information that they contain. But why? Not because they produce any gymnastic effect, but

because they impart certain ideas, habits, mental attitudes, ways of looking at things which will play parts in these future accomplishments. And the reason why one study is more valuable for "training" than another is that the products of the first come nearer to being universal elements. The pursuits of the scholar are more valuable than the working of puzzles, not because they sharpen the wits more, but because their products are components of more and larger activities of life.

But what, you ask, is all this discussion for if its fruit is simply a restatement of well-known facts? I reply, It is much more than a mere restatement. The broader view contains all that is true in the old, but opens up a vast kingdom of which the old was a mere province. The following story will illustrate the practical value of the correction:

The chemist Liebig, when a young man, was visiting a manufactory of blue dye. The ingredients were pounded in huge iron mortars. As Liebig remarked on the deafening din of the pestles, the proprietor replied, "The bigger the noise, the brighter the color." The young chemist informed him that this was due to the iron worn off by the pestles, and suggested that he might save both steam and machinery by sprinkling in a few iron filings.

Have the educators been wiser than that proprietor? We have found in an empirical way that certain studies, taken in the lump, result in abler youths, and we have been content to name the fact "mental training" without inquiring what, in the studies, is the essential factor that produces the desired effect. The waste must have been enormous. If we can turn to science for an answer to that question; if by analysis we can discover exactly what are the essential components of each kind of that valuable thing so vaguely called mental training, and which of these components each study is fitted to contribute in the shape of ideas, ideals, habits, attitudes, view-points, or, in one shop-word, apperception-mass, if we will then apply this knowledge to the practise of teaching; our saving will be as great as that proposed by the great scientist.

The educational world to-day is teeming with discussions of

the curriculum. With due modesty, I submit that few, if any, of these go to the root of the matter, because few substitute definite values for an undefined crudity. We are still left to wear out mortars for the sake of a little iron-dust, to chew cane when we want sugar, to burn the house in order to roast the pig.

Here is opened a fascinating field for the student of education. Not in a year or a decade, possibly not in one lifetime, can we hope to see the completion of the great task of analysing education values and—not revolutionizing but—readjusting our entire educational scheme; yet each little step in this direction will give us just that much more of sound theory and successful practise.

To sum up: The gymnastic theory of education, or the doctrine of formal discipline, is based on the faculty-psychology. This psychology is a mere assumption, offering no ground to introspection, contradicted by the most probable theory of mental action and of brain physiology, opposed by the results of exact experiments. The facts of the case can be explained much better without its aid, by the principle that the performance of one mental act improves any subsequent act just so far as these two acts have elements in common. It is the future task of the educator to discover how best to extract from the several studies those elements which will be components of the largest number of the most important functions of life.

As we approach that goal, less and less will mental improvement be a myth; more and more will the substance of it prove to be a solid—perhaps an astonishing—reality.

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IV

DAILY LIFE IN THE GERMAN SCHOOL

With some theoretical knowledge of the German school system, it was a most instructive and interesting experience to have my knowledge extended by personal observation of some of the typical schools. I was fortunate in being able to observe excellent examples of the two leading types of secondary schools. These were the Königliches Gymnasium Philippinum in Marburg and the Oberrealschule in the same city, having together nearly 800 pupils. As Marburg has a population of about 20,000 this makes a fairly high average of those who go beyond the lower schools, even tho some came from outside the city.

The Gymnasium is under the leadership of Professor Aly, who maintains a remarkably high grade of scholarship and discipline, aided by a corps of teachers of high ideals and scholarship. Speaking of German secondary teachers as a whole, one has to do with a distinctly superior set of men. Teachers of second-rate ability rarely seem to find their way into this body. Much is expected of them and they accomplish much.

The day always begins with a short devotional exercise in the assembly hall, where the whole school can come together. This consists simply of the singing of a hymn and the reading of a short selection from the Bible. After this comes the first recitation, in summer at seven, in winter at eight or half-past eight. The manner of gathering in the recitation-rooms seems to aid somewhat in the discipline. Each class has its own room where all recitations are held and the teachers have a convenient waiting-room for themselves. At the ringing of a gong, the pupils go from the yard where they walk during the ten or fifteen minutes between recitations to their own rooms

and take their places standing. They remain thus until the entrance of the teacher. Whenever he is in the room the pupils are supposed to be in order and at attention. This avoids the difficulty often found in American schools, where too much liberty is allowed between recitations while the teacher is still in the room. The compulsory periods of ten and fifteen minutes for exercise thus serve a double purpose, they ensure frequent doses of fresh air and improve the discipline.

To show the standard of work done I can not do better than quote the requirements made of the pupils in one or two classes. I will give first the studies in the Untersecunda, the class which would represent the first year in our high schools. This is taken from the annual report (1905-1906) of the Gymnasium at Marburg. Here, the study of Latin and Greek is emphasized, in contrast with the practical subjects of everyday life study in the Oberrealschule. At the risk of taking too much space I put in the whole schedule of this class, as only so can a fair estimate of its work be gained.

Religion (2 hours)—Divided into (a) Evangelical, (b) Catholic, (c) Jewish, to suit the various creeds of the pupils. Under (a) is studied: The Old Testament—poetic and prophetic books (Psalms, Job, and the Prophets). Reading and explanation of the Gospel of Luke, with consideration of the other Synoptics. Review of the catechism and exposition of its inner structure. Review of verses, Psalms, and hymns. Under (b): Study of the means of grace, with consideration of the liturgy at the holy celebration of the Mass and at the administration of the Holy Sacrament. Introduction to church history by means of character studies of the prominent men. Under (c): Sayings of the Fathers translated and explained. History of the Babylonian exile to the close of the Talmud. Characteristics of God. Likeness of man to God.

German (3 hours)—Practical introduction to the formation of sentences. The poets of the wars of freedom. Schiller's *Bell*, *Mary Stuart*, and *Tell*. Readings. Learning of appropriate passages. Sample subject for composition: "How does the Maid of Orleans in Schiller's *Tragedy* keep herself true to her calling up to the climax of her career?"

Latin (7 hours)—Cicero, *De Imperio Cn. Pompei*, *In Catilinam*, I and III; Virgil, *Æneid*, I; Livy, V; *Æneid*, II. Memorizing 50 verses. Review of the entire syntax. (This was the sixth year of Latin.)

Greek (6 hours)—Xenophon, *Anabasis*, III and IV; Homer, *Odyssey*, I and V (prepared in the class). Review of forms, articles, and pronouns. Xenophon, *Hell.*, I and II. *Odyssey*, VI-VIII. Memorizing. Grammar, dative, genitive, prepositions, and the most important principles of moods and tenses. (This was the third year of Greek.)

French (3 hours)—Syntax and conversation. Reading: Erckmann-Chatrian, *Histoire d'un conscrit*; Extracts from French history.

History and geography (3 hours)—German history from 1740-1788. Geography of Europe. Consideration of the national and social movements. Elements of mathematical geography.

Mathematics (4 hours)—Arithmetic. Equations with one and more unknown quantities. Study of powers, roots, and logarithms. Exercises in logarithms to four places. Simple quadratic equations with one unknown quantity. Plain geometry. Regular polygons. Circumference and area of circles.

Physics (2 hours)—The most important chemical appearances, the principal minerals and their crystal forms. Magnetism and frictional electricity.

The above schedule shows what is required of the German schoolboy of fourteen or fifteen years. To give in full the requirements made in the upper class, *Prima*, would take too much space. I will therefore give only the schedule for Latin and Greek, upon which subjects the *Gymnasium* lays most stress.

Latin (7 hours)—Tacitus, *History*, I and II (selections); Horace, *Odes*, III; Cicero, *Orations*; Horace, *Odes*, IV, and selections from his letters. Review of entire syntax and studies in the art of composition.

Greek (6 hours)—Thucydides, I and II (selections); Sophocles, *Antigone*; Homer, *Iliad*, XIII-XVIII; Plato, *Protagoras*; *Iliad*, XIX-XXIV (selections). Review of grammar.

Most of this is work which falls only to the lot of the college student in America. The advantage of the German in this respect, however, is due to the fact that he begins his Latin and Greek studies earlier.

As regards the methods of instruction in the classroom, the teaching of Latin and Greek does not differ materially from the method in use in this country. Grammar and translation occupy the whole of a recitation or share in the time, but the dead languages are not used now in the classroom to the exclusion of German. This used to be quite commonly the case, and during the Latin or Greek recitation nothing but the given language would be heard in the room. This is regarded now as a waste of time, and judging from fluent translations of Horace which I heard in the classroom of Director Aly, and the thoro knowledge of syntax and accidence shown, no time is lost in the nine years of Latin study in the Gymnasium. This result could only be obtained by constant drill and repetition in the time-honored "grammar method." This drill is begun when the boy is nine or ten years old and continued for nine years, forty-two weeks in the year, with an average of seven hours a week. When excellent teaching is added to this, it is no wonder that the gymnasial graduate has something to show for his labor. He has also acquired something that stays by him for life. He does not forget his Latin and Greek, as is the rule with the American on leaving college. If the German does not continue his study and does not open one of his old classics for ten or twenty years' time, even then he would be able to make a good translation from an average work in Latin. If this does not show greater ability in the individual student or teacher, it does show a more thoro school drill.

But the German schools do not confine themselves to one method of teaching. In the Oberrealschule in Marburg, under the able direction of Dr. Knabe, the "natural method" of teaching the modern languages was used with great success. In this school the practical side of life is given the greatest emphasis. French and English take the place of Latin and Greek, and a thoro drill is given in mathematics. All the teachers have a good working knowledge of the language they

are teaching, acquired by actual residence in that country. In the classroom nothing but the language of the hour is heard. Even from the first recitation this is the rule, while a German word is the exception. Very little actual translation from the foreign language into German is done in the class. The pages read at home must be retold in the class in English or French. Then more is read, and this must be expressed in a different way. Grammar must of course be studied at first, but even that is done as much as possible in the foreign language.

There seems, however, to be as much difficulty in getting a satisfactory grammar in Germany as in this country. Here is a rule for English pronunciation with which boys of twelve and thirteen were struggling, put into English. "In *inlaut* R is vocalized before consonants. The vocalized R lengthens the preceding vowel and deadens the last part of it. This deadening is the more perceptible the more dissimilar the preceding vowel is to the deadened R vowel." On reading that rule I could only look at German schoolboys with awe and admiration to think that they should even try to understand and apply it. It is only fair to say, however, that this book had been found unsatisfactory and was soon to be changed.

The "natural method" has certainly proved to be of practical advantage and teaches the pupils to read and speak a modern language with reasonable fluency. I want to bring out shortly the reason why it is so hard to use this method with success in this country. Before doing this, however, I wish to show the standard of work done in the Oberrealschule as I have already done in the case of the Gymnasium. I quote from the annual report of the Oberrealschule in Marburg 1905-1906, choosing however only French and English as illustrating the main tendencies of this school. First from the Untersecunda (four years before graduation):

French (5 hours)—Principles of syntax, adjectives, adverbs, pronouns; comparative sentences and negations. Review of entire etymology. Grammar. Reading: Kühn's *Reading-book*. One story each by Halévy, Coppée, Daudet, Maupassant, and Theuriet. Conversation.

English (4 hours)—Syntax of articles, adjectives, adverbs,

substantives, and pronouns. The most important prepositions. Review of lessons in the preceding class. Reading: In one division Chambers' *English history*; Mark Twain's *The prince and the pauper*. In the second division, selections from Lüdecking's *English reading-book*; Dickens's *Christmas carol*. Conversation.

In the Prima the work in the same subjects was as follows:

French—Reading: *Polyeucte* by Corneille, and *Iphigénie* by Racine. *Considerations sur les causes de la grandeur et de la décadence des Romains* by Montesquieu, and *Itinéraire à Jérusalem* by Chateaubriand. The most important principles of the art of composition and meter. Conversation, dictation, etc.

English—Reading: Shakspeare, *King Lear*. *Station life in New Zealand* by Lady Barker. *The British empire, its geography, history, and literature*, by Dr. Goerlich. Popular writers of our time. Selections from Mark Twain, L. P. Meade, A. Conan Doyle, James Payne, G. W. Stevens. Talks by the students on selected subjects. Grammar review in connection with the written work. The following is taken from among the subjects for English composition: "A short life of Washington Irving with a few notes on his *Sketch-book*."

It must be borne in mind that the requirements above quoted are not placed in the report to look well, but are actually fulfilled, and done well too.

The reason in brief that the German schools are able to give a more practical knowledge of a foreign language than the American schools is two-fold. First, they give considerably more time to it. Nine years is devoted to French, six to English. Then, the requirements for entrance to the universities are an important factor. In Germany the examining committee is composed of the director and teachers in the school where the pupil has been studying. He can therefore be instructed along practical lines under the continual inspection of the examining committee, who are in constant touch with his work, and no time is wasted in bringing him up to an artificial standard made by some outside body. His record thru the school will show those who have been working with

him whether he is in reality fit to go on. This does not do away with the examination system, but combines it with that of the certificate.

In the American school, however, most classes have to be developed along the line of future college examinations, set by the colleges on an arbitrary standard. The pupil must be familiarized with certain books, rules, and forms, and beyond that nothing will be required. Even time taken for careful drill in pronunciation and conversation, the teacher can rarely find, as thereby he may be neglecting something which the examination standard has made all-important. As long as the present examination system for entrance to college is in use, the instruction in French and German in the secondary schools must suffer on the practical side.

Before closing this article it may not be out of place to speak of one or two phases of the German school system that strike a foreigner as defects. In the first place, too much is expected of the pupil. The boy goes to school at seven o'clock and comes home at noon loaded down with books, only to return to school in the afternoon for more lessons of one kind or another. He is made to feel that he is in the absolute control of the school until he graduates. This undoubtedly helps discipline, which apparently moves more smoothly in a German school than in this country, and accustoms the boy to the idea of military service, which he must later experience. It has the very important disadvantage, however, of tending to form the pupils too much in one mold and restricting their development of individuality.

Another disadvantage is the early age at which the pupil or his parents must decide the direction of his studies. If possible a boy should have decided at the age of ten whether his education shall be along classical or practical lines. If he wishes the former he must go to the Gymnasium, if the latter, to the Oberrealschule. As he is utterly unable at that age to decide for himself, the result is that his parents decide for him, and this injures still more his individuality. This is undoubtedly the reason why in Germany such a large proportion of boys follow the profession of their fathers. When they

have really found out what they would like to do, they find that the way has been practically closed to them years before thru parental decision. This is, of course, by no means the rule, but it is the tendency.

The aims of the German and American schools may be typified by the difference between the verbs "instruct" and "educate." The German school "instructs" its pupil splendidly, along fixt, unchanging lines, and turns out a good scholar. The American school seeks to "educate" its pupils by showing them the possibilities that lie in each of them, and teaching them to make the most of themselves in the formation of an "individual."

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V

THE EQUIPMENT OF THE SCHOOL PRINCIPAL¹

It is surprising to discover how little is in print on the equipment of the school principal. One would expect that an officer that has been with us for approximately half a century would have received more than passing notice at the hands of educational writers. In scanning the syllabus of a course on school administration given at one of our most prominent educational institutions, one finds reasonable treatment given to the officials of the school system from the mayor down to the janitor; in the latter instance, even references to his qualifications, duties, relations to teachers, and relations to pupils; but one seeks in vain for even so much as a mention of the school principal.

In the subject assigned to me, I shall be glad if I can suggest a few points that will bring out some differences of opinion, for contentment and self-satisfaction invariably betoken stagnation, and progress can come only thru full and free discussion. The honest and thoughtful man welcomes criticism, but he asks only that it likewise be honest and sincere and that it all be directed toward finding out the truth. Educational people are too often content to drift along in the old course, apparently oblivious of the fact that the world itself is constantly moving, and that the practises and even the theories of education can no longer be looked upon as sacredly immutable. In speaking of this subject, one writer² says: "Some years since, to a suggestion of mine with regard to teaching geography, the teacher replied: 'I have taught the subject in this way for fourteen years, and I think I know.'"

The mere iconoclast, however, is dangerous. We need not

¹ Paper read before the Scholia Club, San Francisco, Cal.

² George Howland: in United States Bureau of Education, Circulars of Information, 1889, p. 198.

only to discredit educational superstitions and exploded theories, but it is fully as important to suggest something better in their stead.

For present purposes, it seems advisable to confine our thought to the domain of the elementary school, and let us assume without further discussion that this covers the first eight or nine years of the child's school life. Furthermore, let us suppose that we have a school of at least eight teachers—in other words, that we have a typical city or suburban grammar school. That at least one such school should be found in all ordinary communities of 2,300 or 2,500 inhabitants and upwards almost goes without saying, altho in my own town, of the thirteen elementary schools only four are at present in this category, the other nine having all the way from one to six teachers each. It is only fair to state here, however, that such a condition of affairs is directly against the counsel of the superintendent. The school board have apparently not yet appreciated the experiences of the eastern and middle states with regard to the advantages of the consolidation of schools. This is not the time to discuss this question, but I merely wish to submit that such condition, if it exists, does not represent what might be possible if the conditions with reference to size of buildings and concentration of pupils were the most economical.

What should be the equipment, then, of the principal of such a school as I have attempted to suggest?

In the first place, I believe that the principal should be a man. In our school system, constituted as it is, the women seem gradually to be driving out the men. The reasons why are not material here, but we must face the facts. Abroad, on the continent, where one finds the separation of the sexes general, they meet such a possibility by requiring that boys should be taught by men. Since we have practically lost the man as an elementary teacher (and I believe firmly that the schools have been immeasurably the gainers on account of women teachers, altho in our early history the only real schools were taught by men) it seems advisable to keep a man in the principalship. At some time or other, every child ought to come in contact with a

man in the school, for a man has a certain catholicity of spirit and breadth of view that the majority of women teachers never attain, and I say this in no disparagement of the latter, but simply in recognizing the distribution of capacity in the economy of the world—some people being fitted for one thing, and some for another. Neither does this mean that the woman is any less of a teacher. Far from it, for in many departments the man is entirely outclassed. The average man teacher is less emotional, has a different point of view in looking at life and its problems, has wider interests, is less troubled by small affairs, and on the whole exerts a wholesome influence over the child. If we believe with Dr. Dewey that the school is not a preparation *for* life, but it *is* life, in order to reproduce actual social conditions, I am not sure but what I would suggest alternating men and women teachers thruout the grammar grades. The acceptance of this first point, however, is in no way essential to the rest of the paper.

Superintendent Soldan of St. Louis in his annual report for 1898³ says: "This appointment (*i.e.*, of the principal) is ultimately based on the supposition of superior scholarly attainments, pedagogical skill, and executive ability." I am willing to accept these as far as they go, but I should add—and this I believe to be one of the most important of all—a strong and attractive personality. Moreover, the principal should seek continually for further improvement on his own part and should have the power to inspire his teachers with the same desire, for without such growth, scholarly abilities soon become atrophied.

(1) What do we mean by scholarly attainments?—Such an insight into the great aspects of human culture as may be gained thru a course at one of our best colleges or universities. Not that every graduate of an institution of this sort would satisfy such a requirement, or that nobody not a college man could meet this condition, but this suggests itself as the natural method of preparation. This should include a glance, at least, thru each of Dr. Harris's "five windows of the soul, which open out upon five great divisions of the life of man," and I

³ Pamphlet Reprint, p. 19.

should add—with a long look thru some one of the five. These groups are: (1) mathematics and physics; (2) biology, including chiefly the plant and the animal; (3) literature and art, including chiefly the study of literary works of art; (4) grammar and the technical and scientific study of language, leading to such branches as logic and psychology; (5) history and the study of sociological, political, and social institutions. As to how far this knowledge should go in any particular field, as to the relative value of the studies here referred to, I do not propose at present to make even a suggestion, but that every person that lays claim to a liberal culture must have some knowledge of these various fields, I think would be accepted by all, and probably the further statement that we can not well afford to have as principals any but cultured persons. Moreover, I believe that this broad, general culture should be supplemented by a certain amount of professional knowledge such as would be furnished by the philosophy and principles of education, by genetic psychology, and by the history of modern education. Mr. Soldan says: "In these days of marked and rapid advance in the philosophy of education, in child study, and in practical methods, it is not enough for a principal to possess the routine efficiency and the successful experience derived from many years of practise in managing schools." ⁴ We should not think of going to anybody else but an architect if we wanted a fine building constructed. Why should we think of making principals responsible for the conduct of our children's education, if they have no acquaintance with the questions of health or fatigue from the educational point of view, if they are not conversant with the most advanced ideas on the working of the child mind, or if they are ignorant of the significance and importance of the adolescent period? Such questions as these are too far-reaching to be handled by the ordinary person whose sole source of information has been the school of experience.

(2) Teaching skill. Unfortunately the spirit of classicism appears sporadically to remind us that the old idea that the mastery of a subject qualifies one to teach it has

⁴ *Op. cit.*, p. 19.

not wholly disappeared. M. Langlois, in a recent monograph on the training of secondary teachers, put the question very clearly when he said: "The teacher must know his subject; he must know more than his subject; he must know how to teach his subject. . . . It is only in England and in the United States that individuality is pushed to the point of charlatanism, where anybody at all can teach anything at all." ⁵ Now this is just as applicable, but in a less degree, to elementary teachers. What will it avail a man if he has all the knowledge in the world but can not impart it to others?

This teaching skill should reach if possible to a detailed knowledge of the subject-matter and the method of every subject in every grade in his school (I should restrict this to the "old-time" subjects, believing that drawing, music, and the like are quite apart), and this can come only thru actual experience all along the line. Otherwise he will not be in position to appreciate the difficulties of his teachers and to give them the valuable assistance that is bound to come therefrom. Too often the principal's position is looked upon as one quite divorced from actual teaching. This is certainly a mistake. Look for a moment at other walks of life. We read in the newspaper of a man being appointed passenger traffic manager for a great combination of railroad lines and a little farther on find that he entered the service at fifteen years of age and has since occupied positions as telegraph operator, ticket clerk, passenger and ticket agent, and many others. How about the course at West Point, whence come our future military commanders? Each man begins as a private and rises thru the various grades. On leaving the academy, he enters the service in the lowest commissioned officer's rank, and so climbs to commanding positions. In all our industrial and commercial life, similar conditions prevail. Why? Because experience has shown that the directors of great enterprises best qualified for their positions are those whose experience has compassed all branches of their business even to the minutest details. Are the principal's responsibilities any less important than those of military and civil leaders?

⁵ Ch. V. Langlois: *La préparation professionnelle à l'enseignement secondaire*, p. 101.

One of the best receipts for the principal reminding himself that he is none the less a teacher is suggested by James in one of his laws of habit: "Keep it (in our case, teaching skill) alive by a little judicious exercise every day." Lack of exercise causes lack of power just as much in teaching ability as in physical life. The director of a laboratory would never think of stepping aside and allowing his assistants to carry on all the work. He keeps himself in touch with his subject by carrying on investigations of his own, by working over the new fields that are opening up thru the labors of other scholars. He is never content to watch his subordinates do this for him. The principal is after all a teacher of teachers, acting as a kind of normal school critic teacher. With the teaching life as short as it is at present, the teaching force is almost constantly changing, and it is not always possible to find tried instructors to fill the vacancies that are occurring every year. The capable principal can often be the making of the young teacher who comes with fear and trembling to her first real school, and the highest efficiency here often implies ability on the principal's part to step in and teach demonstratively the subject that may be a source of trouble. The faltering teacher oftentimes needs only a word of encouragement at the proper time to revivify and strengthen her in her weakness. Furthermore, when we remember that even under the most favorable conditions, after high school and normal school, yes, and university work, too, it requires three or four years of actual experience in the classroom before a teacher really finds herself and is capable of doing her best work, it can readily be seen that the question of this aspect of the principal's work can not be lightly cast aside. Many principals do not consider themselves responsible for training their teachers; and neither are they legally. But they can not escape the moral obligation hanging over them. In the long run, the school will be what the principal makes it; it will reflect his nature. If he is a good teacher, he will gather other good teachers about him. But the master teacher that is possest of real educational insight and skill will have the additional advantage of being able to mold and improve the teaching material that he is able to procure.

(3) Executive ability. The possession of executive ability, the power to lead people, to direct people, to control people, in short to make things "go," marks one of the chief differences between the ordinary teacher and the principal of a school. This power of organization is really of vital importance, for it is absolutely essential that the school machinery should run smoothly. So it happens that the successful principal possesses many of the qualities of the diplomat. Not all the work of the school is equally pleasant, and teachers must be assigned to this or that task and yet to be made to feel happy in undertaking it. So the principal must know his teachers thoroly to the end that he may suggest changes within his own school which are for the best interests of the work. Some of these are not easy either to suggest or to carry out, but in such cases he should be able to put sentiment aside and remember that the welfare of the school and the community is of more importance than that of any individual member of that community. This often requires a large amount of fearlessness, such a fearlessness, for example, as enables one to rise above personal or political motives in his acts; but after all is not this one of the characteristics of a true executive?

Differences will arise from time to time with pupils, so that the tact of even the most skilful is severely taxed. All these things demand a keen judge of human nature, as we say in the ordinary affairs of life, but when such qualities are exhibited within the school we sometimes call the possessor of them a "conduct specialist." And every principal needs to be such a "conduct specialist." It requires only a very ordinary degree of executive ability to rule a school full of children under a system of military despotism, but it is singularly difficult and requires a peculiar disposition to bring out the best that is in children so that they may be taught to control themselves and to develop strong characters with a well-fixt bent toward right things. After all the development of control from *within* is the only kind worth striving for. Many teachers have made this idea a part of their creeds, but many others have yet to be born again into the new faith, and it is often the principal's privilege to be responsible for this regeneration. This will all

help in bringing about a unity of purpose, a homogeneity in school conduct that can not help impressing itself upon the attention of even the casual visitor.

Again, in none of his work should the principal endeavor to build up a one-man machine. Not that the school should not be under the sole domination of the principal, but it should not be so mechanically administered that the firm hand of the master is constantly necessary for its proper working. The individuality of the various teachers should be allowed considerable freedom, always, of course, within certain broad limits, and they should constantly be encouraged to suggest modifications of, or improvements in, the existing régime. In other words, the pervading spirit should be one of coöperation. Teachers' meetings—of which more a little later—will be found one of the most serviceable means of encouraging such a relationship.

The exercise of a principal's executive powers is not confined entirely to the internal affairs of the school. The school bears a certain relation to society. It is, however, not the sole educational force, but it is only one of several powerful influences that play upon the child. Many people are willing to admit this theoretically, but practically they do not, else why have not more attempts been made to bring that very important factor, the family, into not only harmonious but even coöperating relations with the school? The mothers' club has made a beginning, but this is only one instance of such alliances. Who but a principal can foster and encourage such undertakings? And this work demands a person of special qualities. So we are beginning to see that the executive qualifications of a principal are no longer of such a kind as will permit a man to sit calmly in his office and merely see that things "run."

(4) A strong and attractive personality. This requirement in a principal is too often underestimated. As we look back on our own school life, how much do we remember of what particular teachers taught us, yet how clearly do we see in our lives the impress of their characters! And among them all, the principals with whom we have come in contact stand out in bold relief. Some we cordially disliked on account of

their small natures, while others we loved for their kindness, their sympathy, their humanity. These latter were the ideals of our childish fancies, and their power to influence probably far surpasses even that of the clergyman. "One day as I was walking on the outskirts of a small German village," says an American traveler, "I saw a cavalcade slowly winding its way along the country road. In a moment of idle curiosity, I followed behind until the procession came to a halt in the little cemetery on the hillside. The feeling of real sorrow that seemed widespread was profoundly touching, for all the townspeople, young and old alike, had stopt their ordinary labors to pay a last tribute of respect to their dead. 'Surely,' I thought to myself, 'it must be some great benefactor of the village that is being thus universally honored.' At the conclusion of the simple service, as the people turned back to their work again, I joined a group of boys and inquired whose memory it was that the people had all thus come out to honor. 'The village scholmaster,' was their reply. 'For sixty years he has served us, and three generations of children have past under his care.' " Do you suppose this reverence and respect were rendered for what he had taught these simple country folk? Far from it. It was the sweetness of character and the spirit of sacrifice and service that he had been exemplifying for sixty years that had called forth this homage. Such an influence as this lives long after the dry subject-matter has past beyond all recollection. So our principal must be a *real* man, a socially-minded creature that can and will take his part in the work of the world. This is the only way of avoiding the narrowing tendency of one's vocation, for inbreeding in educational work sooner or later brings impotence.

The example that a principal sets before his pupils is more far-reaching than he apparently realizes. How can he expect his boys to come to school with clean hands, face, clothes and shoes, if he himself is careless of his personal appearance, if his linen is soiled or his clothes or shoes uncared for? Pestalozzi was great enough to succeed in spite of these things, but I doubt very much if he would be tolerated today in any respectable school. Fine clothes are not necessary, but cleanliness

is truly next to godliness, and good taste is everywhere possible.

The personality of the principal is reflected in the appearance of his schoolhouse as well as of his pupils. If he is deficient in artistic sense, you may expect to find on his walls and about his building atrocities both of form and color, whereas, a person of fine sensibilities could not remain in a school long without casting out the old and living within bare walls rather than among some of the travesties upon art that one sometimes finds. He should be strong enough to put some little leaven in the community outside the school. So, after all, the school largely, and thru it to a less extent the neighborhood, is what he makes it.

(5) Finally the capacity for growth is of vital importance. It is even more important for the principal than for the class teachers, for the former is the head and should be the leader in fact as well as in name. Without such progress, he may improve in the mere mechanical smoothness of school management, but not as an educator. So we have need of a student, of the man of broad outlook, of large ideas, possess of the spirit of inquiry and of investigation, one who will keep in touch not only with the progress of his profession, but also with the march of events in the outside world. I suppose there is no profession where there is any stronger tendency to become desiccated and stagnated than in the teaching profession. Thus the principal has not only his own tendencies to overcome, but he must have the life and enthusiasm to inspire his teachers to progress, as well as the ability to direct their professional work, for every teacher should be encouraged to get outside the narrow confines of her schoolroom walls and its routine duties. The teachers' meeting is undoubtedly the best medium for carrying on such work, and it goes without saying that the principal must be the moving spirit here. In this way alone can he be sure that his teachers are keeping up with the latest and best thought in school work. Contributions are constantly being made in the field of education—unfortunately one can not say to the science of education, but at least we are gathering a body of thought—and the ordinary teacher is too

prone to base her thought on what had been written before her graduation from the normal school. Indeed, keeping up with this advance in the profession is more than a mere sign of progress; it is a real economy, for teachers and principals alike are saved from digging out of the hard field of experience the truths that another has already found and offers to us merely for the reading. As Dr. Dewey says: "The willingness of teachers, especially of those occupying administrative positions, to become submerged in the routine details of their calling, to expend the bulk of their energy upon forms and rules and regulations, and reports and percentages, is another evidence of the absence of intellectual vitality. If teachers were possessed by the spirit of an abiding student of education, this spirit would find some way of breaking thru the mesh and coil of circumstances and would find expression for itself."⁶

The ideal that we have set before us may seem high and difficult of realization, but I believe the time is past when a principal's chief recommendation for appointment should rest merely on the fact that he is a good so-called disciplinarian, that his pupils are properly classified and distributed, that he keeps the school records according to precise rules, that he gets along with his teachers. Just as I am firmly convinced that our principals today are better qualified than were those of a quarter of a century ago, so I am confident that public sentiment in the near future will demand of all such a standard as is today attained only by the few.

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⁶The relation of theory to practice; in *The Third Yearbook of the National Society for the Scientific Study of Education*. Part I., p. 16.



VI

EDUCATIONAL LEGISLATION FOR 1906¹

During the year ending September 30, 1906, there were reported to the legislative reference section of the New York State Library from states and territories holding legislative sessions, 121 acts affecting educational matters. The number of enactments is greatly less than for the year ending September 30, 1905, when 367 acts were reported. This is no doubt largely due to the fact that the legislatures of many states do not hold sessions in the even years. As usual a great majority of the new statutes are amendments to existing statutes and laws affecting minor details of school government and administration. There are, however, a great many statutes which will have a wide influence on the school affairs of the state to which they refer, and many enactments which are of interest to the school public. The state of Virginia seems to have taken the lead in the matter of school legislation, having past no less than twelve laws affecting school matters and very extensively revising the code of public education.

A noteworthy piece of legislation was the incorporation by Congress of the National Education Association of the United States. This body is the successor of the National Educational Association and continues all the rights, powers, and obligations of that body. The incorporation of the National Educational Association, which was made under the laws of the District of Columbia, expired under its twenty-year limitation in February, 1906. The matter was discust at the meeting of the association in Asbury Park, in 1905, and the following resolution past at that meeting:

¹From the Review of Legislation for 1906, published by the New York State Education Department, Bulletin 113. See also Governor's Messages and Index of Legislation, 2220.

Resolved, That this association authorizes and requests the board of trustees to make application to Congress for a special act in the following form to incorporate an association to be known as the National Education Association of the United States, to succeed and continue the National Educational Association.

The bill for the proposed incorporation was duly introduced in Congress under charge of the Hon. George N. Southwick, of New York, chairman of the education committee, past both houses and was signed by the President, June 30, 1906. It was the second instance where Congress has past a bill of this character and the fact that it was thus enacted renders it impossible to amend it except by act of Congress. This insures a permanency to the association which is much to be desired, and further gives it a recognition of national character. The association during its twenty years of history has made such an enviable record, has been so instrumental in shaping the educational policy of the various states of the Union, and has become possesst of so much invested property, that an incorporation of the most stable character was demanded. The law past (U. S., '05-'06, ch. 398) continues all the powers held by the former association, provides for a simpler and more rational government, protects the permanent fund of the association, and carefully safeguards the disposition and expenditure of the income. The adoption of this act of incorporation must be made at the next meeting of the association, to be held at Los Angeles in July, 1907, and the adoption of bylaws governing the administrative details of the association will be brought up before the same meeting.² The perpetuation of this great association, which is unique in the annals of educational history, and the safeguarding of its funds and investments, together with the assurance of its future activity and impress upon the educational life of the country, is the most important legislative act of the year.

Another statute out of the ordinary in school legislation and

²Since this was written the association at its Los Angeles meeting, July 10, 1907, approved the act of incorporation, and adopted the bylaws drawn by a special committee.

which establishes a precedent in this country, was past by the New York Legislature and became a law May 31 ('06, ch. 678). It provides for the selection of a suitable site for a building for the use of the State Education Department and the erection of a building which shall be a home for all the educational activities of the Empire State. Since the unification act of 1904, the Education Department of the State of New York, comprising as it does the State Library and the State Museum, in addition to all other educational machinery of the state, is by far the largest executive branch of the state government. Its offices occupy nearly one third of the present State Capitol, and the growth of other departments of the state renders necessary a separate building for the administration of its educational affairs. The building will occupy two blocks in the central part of the city, and will be 600 feet long and 250 feet in depth and five stories high. The entire cost will be \$4,000,000. The architects, Palmer & Hornbostel, of York City, the winners of the architectural competition, have designed a building which in its pure classic outlines will be an ideal home for the educational interests of the state. It is noteworthy that New York is the first state to erect a building devoted solely to the needs of educational administration. Even the United States Bureau of Education is housed in an annex of the Interior Building. The parallel might go even farther than this, inasmuch as there are only two or three countries in the world which have a monumental building designed solely for administrative purposes of national education. It is expected that the Education Building of the State of New York will be ready for occupancy in the fall of 1910.

School codes.—As stated above, the only state to materially alter its school code during the year under consideration was Virginia, not less than twelve acts having been past by the Legislature of 1906. The first act ('06, ch. 33) establishes a state board of education, fixes the compensation of the board and the terms of office and qualifications of its members. The second act ('06, ch. 248) prescribes the duties of the board and materially amends sections of the code of Virginia relating to public free schools in counties and the distribution of the

literary fund. A state superintendent of public instruction is provided for in a former act ('06, ch. 3), whose salary is \$2,800 a year, and \$500 for traveling expenses. Among the powers delegated to the State Board of Education are: to divide the state into proper school divisions; to prescribe the duties of the Superintendent of Public Instruction; to provide for the inspection of schools and the examination of teachers; to select text-books, school furniture, and educational appliances; to approve the plans of the superintendent of public instruction for the conduct of summer normal schools; to decide appeals from the decisions of the Superintendent of Public Instruction; to invest the capital and unappropriated income of the literary fund and to audit all claims to be paid out of said fund; to approve or amend the apportionment plans made by the Superintendent of Public Instruction; to make a report to the General Assembly at each regular session, together with recommendations in reference to the public free-school system. This practically places the entire educational system of Virginia in the hands of a state board, of which the State Superintendent of Public Instruction is merely the executive officer. This act ('06, ch. 248) further prescribes the powers and duties of county school boards and of school trustees. The bill finally provides that in every public free school shall be taught orthography, reading, writing, arithmetic, grammar, geography, physiology and hygiene, civil government, drawing, history of the United States, and history of Virginia.

Another act ('06, ch. 240) amends the existing laws relating to the division of school districts and subdistricts and provides for the government and administration of these subdistricts, for additional school taxes, and the appointment of school directors. It is supplemental to and extends the workings of the chapter above mentioned relating to the powers and duties of the state board. Still another enactment ('06, ch. 293) amends sections of the code of Virginia relating to public free schools in cities and in towns constituting separate school districts, and is in accord with the main changes made in the general state school law.

Maryland ('06, ch. 356) amends the school code by providing that the members of the State Board of Education shall receive no salary, but shall receive actual expenses incurred in attending meetings. The bill further provides for the appointment of an assistant superintendent of education at a salary of \$1,500 a year, and further provides that a teachers' institute to continue for not less than five days shall be held for each county once a year.

Compulsory education.—There seems to have been a cessation in the passing of laws governing compulsory attendance of children on public schools, presumably for the reason that most of the states now have fairly satisfactory working statutes. Maryland ('06, ch. 236) adds a new section to the public education code regarding the compulsory attendance of deaf and blind children, fixing the age limit between six and sixteen, and providing that where a parent or guardian of a deaf or blind child is not financially able to pay for the transportation of the child to some school for the deaf or blind, the same shall be paid out of the state appropriation for the school where the child attends. Failure to comply with this law on the part of the parent or guardian is a misdemeanor.

Massachusetts ('06, ch. 383) amends the act relative to compulsory education by providing that no physical or mental condition which is capable of correction or which renders a child a fit subject for special instruction at public charge in institutions other than public day schools, shall avail as a defense unless it shall be made to appear that the defendant has employed all reasonable measures for the correction of the condition or for the suitable instruction of the child. Massachusetts also provides ('06, ch. 389) that habitual truants, habitual absentees, and habitual offenders shall be committed to truant schools for the instruction and training of children now provided for by the several counties and not to any other institution or place. The only exception made to this is the Plummer Farm School of Reform for Boys, at Salem.

Ohio ('06, p. 267) makes the conveying of pupils to school at public expense optional with boards of education and not

applicable to pupils living less than one-half mile from a school-house.

School funds.—Arkansas ('06, ch. 156) authorizes and empowers county judges to lease wild and uncleared one-sixteenth sections of school lands for a term of years for the purpose of putting the same in cultivation. The same state also enacts ('06, ch. 248) that any special school district in the state may borrow money for building purposes and mortgage the property of the district to secure the same. A constitutional amendment has also been past by both houses of Arkansas and is to be submitted to the people, empowering the General Assembly to provide by general laws for the support of common schools by taxes which shall never exceed in any one year 3 mills on \$1 on the taxable property of the state, and by an annual per capita tax of \$1 to be assessed on all male inhabitants over the age of twenty-one years. The amendment further proposes that the General Assembly may authorize school districts to levy by a vote of the qualified electors of such district a tax not to exceed 7 mills on \$1 in any one year for school purposes.

Georgia ('06, p. 61) amends its acts providing for local taxes for public schools, stating in detail how the local tax shall be levied, the powers and duties of trustees in connection therewith, and defining the corporate property subject to local taxation.

Kentucky ('06, ch. 79) amends its state law in reference to the powers of a board of education in making tax levies and issuing bonds and pledging revenue for money borrowed.

New Jersey ('06, ch. 146) amends its free-school act in reference to the distribution of state tax among counties for school purposes; and also in another statute ('06, ch. 277) provides that bonds which are issued by consolidated school districts shall continue a lien upon such districts.

New York ('06, ch. 698) authorizes a larger apportionment of public-school funds to weak rural districts as follows: to each district having an assessed valuation of \$20,000 or less, \$200; to districts having an assessed valuation of between \$20,000 and \$40,000, \$175; to each district having an assessed

valuation between \$40,000 and \$60,000, \$150; to each of the remaining districts, \$125. This is an advance of \$50 a year to the weakest districts, and of \$25 a year to the other districts included in the above categories.

Ohio ('06, p. 256) amends prior statutes by providing that there shall be levied annually a tax of 1 mill upon the grand list of the taxable property of the state, the proceeds of which shall constitute the state school fund; and a like tax of .10 of a mill for the purpose of creating a sinking fund; and a like tax of .15 of a mill, the proceeds of which shall constitute the Ohio State University fund. Ohio further provides ('06, p. 127) that the local tax levied for school purposes shall not exceed 12 mills on the dollar in rural school districts and 6 mills on the dollar in city school districts. It is specified, however, that any special levy for a special purpose may be authorized by vote of the electors.

Rhode Island ('06, ch. 1306) provides that towns may take and condemn improved and unimproved lands for the erection of schoolhouses, provided the amount of the same at any one taking shall not exceed one acre, and also fixes the method of procedure for condemnation proceedings.

Virginia ('06, ch. 252) authorizes school boards of the school districts in the state to borrow money belonging to the literary fund for certain specified purposes, and authorizes a loan of such funds to each district. In another statute ('06, ch. 255) school boards of school districts in the counties of the state are permitted to borrow money and issue bonds for the purpose of erecting and furnishing schoolhouses. Virginia also ('06, ch. 80) provides that the common council of each city may levy a tax upon the real and personal property, not to exceed 50 cents on \$100, for school purposes. This increases the amount from 30 cents to 50 cents upon \$100.

Training of teachers.—Arkansas ('06, ch. 311) makes provision for improving the character of teaching in the state by establishing county institutes to be held one each year, one for whites and one for negroes. It is made the duty of the state superintendent to outline and supervise the work. By chapter 343, laws of 906, the Legislature provides that the diplomas of

all graduates of the Normal Department of the University of Arkansas shall be equivalent to a teachers' professional license.

Iowa ('06, ch. 122) repeals various sections of the laws relating to public education and enacts in their stead a statute defining the qualifications of county superintendents, the grades of certificates issued by them, subjects in which examinations are to be held for the various certificates, and the procedure for the revocation and annulment of licenses.

Kentucky ('06, ch. 39) enacts that any county superintendent or county examiner who shall knowingly grant to any immoral person or to any person under the prescribed age a certificate to teach in the common schools, shall be guilty of a misdemeanor. Kentucky ('06, ch. 102) also provides for the establishment of two state normal schools, to be known as the Eastern Kentucky State Normal School and the Western Kentucky State Normal School respectively; creates a board of regents for the government of each school and prescribes the powers and duties of the board and the purpose and character of the school. The same commonwealth ('06, ch. 92) provides that the diploma of the Agricultural and Mechanical College of Kentucky shall be received as sufficient evidence of qualification to teach in the public schools of Kentucky during life.

Ohio ('06, p. 228) amends the revised statutes and provides a penalty for publishing or giving information about questions for the examination of teachers.

Massachusetts ('06, ch. 399) provides that persons desiring to teach in the public schools shall on payment of a fee of \$2 file an application with the State Board of Education. It shall thereupon be the duty of the board to make a list of these applicants, arrange the same for convenient reference, and to furnish superintendents of schools and school committees of cities and towns all reasonable information concerning such applicants. Mississippi ('06, ch. 146) abolishes the Holly Springs Normal School as a school for colored pupils and attaches the buildings, fixtures, and grounds to the branch agricultural experiment station of the state.

Pensions and retirement funds.—Maryland ('06, ch. 475½)

amends the prior law and provides that a teacher who has reached the age of sixty years who has been twenty-five years in the public or normal school service of the state, and who is without means of comfortable support, may upon application and supported by the recommendation of the board of county school commissioners be placed upon the retired list and receive a compensation from the state of \$200 a year.

New Jersey ('06, ch. 103) amends its pension legislation so that any teacher, principal, or superintendent who shall have been employed in the public schools of the state not less than thirty-five years, shall upon application or by resolution of the board employing such teacher be retired from duty on half the average annual salary during the last five years of service. New Jersey ('06, ch. 314) amends its teachers' retirement fund statute, outlining in detail the duties of the trustees of the retirement fund, their organization, and powers in reference to the administration of the fund.

New York ('06, ch. 305) authorizes the city of Troy to establish a retirement fund for pensioning retired teachers, supervisors, superintendent, and principals of the public schools of the city of Troy.

Higher education.—Ohio ('06, p. 309) enacts an important provision wherein is a declaration of the distinct and fixed policy of the state with respect to the Ohio State University, Miami University, and the Ohio University, to the end that the state of Ohio may build up one university worthy of the state and that the two last named institutions may be maintained as colleges of liberal arts of the first grade, not including technical or graduate instruction. Tax levies for the support of the institutions are provided for and some limitations fixed as to the expenditure of the money. This is one of the most important laws in the field of higher education which has been enacted in several years.

South Carolina ('06, ch. 14) converts the South Carolina college into a university under the name of The University of South Carolina, with the avowed object of expanding the work of the institution. The trustees of the old College of South Carolina are continued as trustees of the university.

It is further provided that hereafter the University of South Carolina, the South Carolina Military Academy, the Winthrop Normal and Industrial College of South Carolina, and the Colored Normal, Agricultural and Mechanical College of South Carolina shall be separate and distinct institutions, each under its separate board of trustees or visitors.

Industrial education.—This subject is receiving annually more attention from the educational and legislative authorities of the country, and the adjustment and regulation of a rational amount of industrial training with the regular school curriculums continues to be a point under constant discussion. Nothing which affords very material help on this subject has been elaborated during the past year, but the state of Massachusetts in the appointment of an Industrial Commission, authorized by chapter 505 of the laws of 1906, has taken a step which has attracted wide attention and which may result in material benefit. This commission, appointed by the Governor, consists of five persons who are to serve for a term of three years and receive such compensation as the Governor and Council shall approve. An appropriation of \$8,000, therefore, for the first fiscal year is provided for the necessary clerk hire, administrative and incidental expenses, traveling expenses, etc. The commission is charged with the duty of making an investigation of the methods of industrial training and of local needs, and to advise and aid in the introduction of industrial education in independent schools. It is empowered to provide for lectures on the importance of industrial education and kindred subjects, and to visit and report on any special schools in which such education is carried on. It may also initiate and superintend the establishment and maintenance of industrial schools for boys and girls with the coöperation and consent of the municipality involved, and shall have all necessary powers for the conduct and maintenance of such industrial schools, and the moneys appropriated by the state or municipality for their maintenance are to be expended under the direction of the commission. The commission is also given power to provide for the establishment of evening schools. Section 5 of the act provides for the expense of maintaining the schools established

under the supervision of the commission and the amount which the state will allow the cities or municipalities for conducting the same, said amounts being in each case proportionate to the amount raised by local taxation. The commission is also required to make an annual report to the Legislature upon the condition and progress of industrial education.

This act places in the hands of the Industrial Commission unprecedented powers in the matter of control of schools of whatever nature for training in commerce and industry. The extent of their work seems to be limited only by their ability to persuade municipalities and towns to establish and organize such schools. The experiment will be watched with great interest, and the first annual report of the commission to the Legislature should be of great value in determining a question which at present is occupying a great share of the attention of the educators, legislators, and business men of the country.

Georgia ('06, p. 72) provides for the establishment and maintenance of schools of agriculture and mechanic arts in the respective congressional districts of the state, and all schools so established are to be considered branches of the State College of Agriculture. The bill further provides for the course of study, work of students, and their support, and the funds to establish and maintain the schools. Georgia further appropriated ('06, p. 10) \$100,000 for buildings for the University of Georgia. The same commonwealth ('06, p. 75) authorizes and organizes an agricultural, industrial, and normal college in South Georgia, which, however, is to be considered a branch of the University of Georgia.

Iowa ('06, ch. 185) provides for agricultural extension and experiment work by the Iowa State College of Agriculture and Mechanic Arts, and makes an appropriation therefor.

New York ('06, ch. 682) authorizes the establishment of a state school of agriculture in St. Lawrence University and makes an appropriation for the erection and equipment of the necessary buildings. The board of trustees of St. Lawrence University has general care, supervision, and control of the school.

Miscellaneous.—Massachusetts ('06, ch. 502) provides that the school committee of every city and town in the commonwealth shall appoint one or more school physicians and assign one to each public school and provide them with all proper facilities for the performance of their duties, which duties are carefully set forth in the succeeding sections of the act. This act is a most important one in respect to the public health of children and will bear close investigation by the legislative authorities of other states.

South Carolina ('06, ch. 18) enacts that the 18th of March, Calhoun's birthday, shall be known as South Carolina day and shall be a public holiday. The public schools of the state are required to observe the day with such exercises as will conduce to more general knowledge and appreciation of the history, resources, and possibilities of the state.

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VII

PRESENT TENDENCIES IN WOMEN'S COLLEGE AND UNIVERSITY EDUCATION ¹

Anniversaries like this which compel us to pause for a moment and review our progress come with peculiar significance to women of my generation. I doubt if the most imaginative and sympathetic younger women in this audience can form any conception of what it means to women of the old advance guard, among whom you will perhaps allow me to include myself, to be able to say to each other without fear of contradiction that in the twenty-five years covered by the work of the Association of Collegiate Alumnae the battle for the higher education of women has been gloriously, and forever, won.

The passionate desire of women of my generation for higher education was accompanied thruout its course by the awful doubt, felt by women themselves as well as by men, as to whether women as a sex were physically and mentally fit for it. I think I can best make this clear to you if I refer briefly to my own experience. I cannot remember the time when I was not sure that studying and going to college were the things above all others which I wished to do. I was always wondering whether it could be really true, as every one thought, that boys were cleverer than girls. Indeed, I cared so much that I never dared to ask any grown-up person the direct question, not even my father or mother, because I feared to hear the reply. I remember often praying about it, and begging God that if it were true that because I was a girl I could not successfully master Greek and go to college and understand things to kill me at once, as I could not bear to live in such an unjust world. When I was a little older I read the Bible en-

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tirely thru with passionate eagerness because I had heard it said that it proved that women were inferior to men. Those were not the days of the higher criticism. I can remember weeping over the account of Adam and Eve because it seemed to me that the curse pronounced on Eve might imperil girls' going to college; and to this day I can never read many parts of the Pauline epistles without feeling again the sinking of the heart with which I used to hurry over the verses referring to women's keeping silence in the churches and asking their husbands at home. I searched not only the Bible, but all other books I could get for light on the woman question. I read Milton with rage and indignation. Even as a child I knew him for the woman hater he was. The splendor of Shakspeare was obscured to me then by the lack of intellectual power in his greatest women characters. Even now it seems to me that only Isabella in *Measure for measure* thinks greatly, and weighs her actions greatly, like a Hamlet or a Brutus.

I can well remember one endless scorching summer's day when, sitting in a hammock under the trees with a French dictionary, blinded by tears more burning than the July sun, I translated the most indecent book I have ever read, Michelet's famous—were it not now forgotten, I should be able to say infamous—book on woman, *La femme*. I was beside myself with terror lest it might prove true that I myself was so vile and pathological a thing. Between that summer's day in 1874 and a certain day in the autumn in 1904, thirty years had elapsed. Altho during these thirty years I had read in every language every book on women that I could obtain, I had never chanced again upon a book that seemed to me so to degrade me in my womanhood as the seventh and seventeenth chapters on women and women's education, of President Stanley Hall's *Adolescence*. Michelet's sickening sentimentality and horrible over-sexuality seemed to me to breathe again from every psuedo-scientific page. But how vast the difference between then and now in my feelings, and in the feelings of every woman who has had to do with the education of girls! Then I was terror-struck lest I, and every other woman with me, were doomed to live as pathological invalids in a universe mer-

ciless to women as a sex. Now we know that it is not we, but the man who believes such things about us, who is himself pathological, blinded by neurotic mists of sex, unable to see that women form one-half of the kindly race of normal, healthy human creatures in the world; that women, like men, are quickened and inspired by the same study of the great traditions of their race, by the same love of learning, the same love of science, the same love of abstract truth; that women, like men, are immeasurably benefited, physically, mentally and morally, and are made vastly better mothers, as men are made vastly better fathers, by subordinating the distracting instincts of sex to the simple human fellowship of similar education and similar intellectual and social ideals.

It was not to be wondered at that we were uncertain in those old days as to the ultimate result of women's education. Before I myself went to college I had never seen but one college woman. I had heard that such a woman was staying at the house of an acquaintance. I went to see her with fear. Even if she had appeared in hoofs and horns I was determined to go to college all the same. But it was a relief to find this Vassar graduate tall and handsome and dressed like other women. When, five years later, I went to Leipzig to study after I had been graduated from Cornell, my mother used to write me that my name was never mentioned to her by the women of her acquaintance. I was thought by them to be as much of a disgrace to my family as if I had eloped with the coachman. Now, women who have been to college are as plentiful as blackberries on summer hedges. Even my native city of Baltimore is full of them, and women who have in addition studied in Germany are regarded with becoming deference by the very Baltimore women who disapproved of me.

During the quarter of the century of the existence of the Association of Collegiate Alumnae two generations of college women have reached mature life, and the older generation is now just passing off the stage. We are therefore better prepared than ever before to give an account of what has been definitely accomplished, and to predict what will be the tendencies of women's college and university education in the future.

I think I can best tell you in a concrete way what has been accomplished in women's education by describing to you the condition of affairs which I found in 1884, when I returned from Germany, and set about planning the academic organization of Bryn Mawr. The outlook was discouraging except for the delight women were beginning to show in going to college. No one knew at all how things were going to turn out. The present achievement was small; the students were immature and badly trained; the scientific attainments of the professors teaching in colleges for women, with a few shining exceptions, were practically *nil*. Women were teaching in Wellesley, Mount Holyoke, and Smith without even the elementary training of a college course behind them. Men in general, including highly intelligent presidents of colleges for women, as well as highly intelligent presidents of colleges for men, held in good faith absurd opinions on women's education. When I protested to the president of the most advanced college for women in regard to this lack of training, he told me that we could never run Bryn Mawr if we insisted on the same scholarly attainments in women professors. He—and I think he will forgive me for quoting his opinion in those early days, because I am sure that he has since changed it—and the president of perhaps the greatest university for men in the United States, both told me that there was an intuitive something in ladies of birth and position, which enabled them to do without college training, and to make on the whole better professors for women college students than if they had themselves been to college.

Every one I consulted prophesied disaster if we carried out our plan of appointing to our professorships young unmarried men of high scientific promise. They said: in the first place such men will not consent to teach women in a woman's college; in the second place, if they should consent, their unmarried students will distract their minds; and in the third place, if by chance they should be able to teach coherently, then surely such will be the charm of their bachelor estate that their girl students will compete with each other for proposals out of the classroom rather than for marks in the classroom.

The president of Harvard College, when he visited Bryn Mawr a few years after its opening and found that our students were governing themselves and going away for the night, or for the week-end, as they saw fit, said to me: "If this continues, I will give you two years, and no more, in which to close Bryn Mawr College." From that day to this Bryn Mawr College students have had free and unrestricted self-government, and have proved that women of the age our mothers were when we were born are old enough to govern themselves. Student self-government is now working well in thirteen eastern colleges where women study, and is, I believe, destined to spread to all other colleges for women.

And so it has been with many other questions in women's college education which were experiments only five and twenty years ago. Our highest hopes are all coming gloriously true. It is like reading a page of one of Grimm's fairy tales. The fearsome toads of those early prophecies are turning into pearls of purest radiance before our very eyes.

The curriculum of our women's colleges has steadily stiffened. Women, both in separate, and in coeducational colleges, seem to prefer the old-fashioned, so-called disciplinary studies. They disregard the so-called accomplishments. I believe that to-day more women than men are receiving a thoro college education, even altho in most cases they are receiving it sitting side by side with men in the same college lecture rooms.

The old type of untrained woman teacher has practically disappeared from women's colleges. Her place is being taken by ardent young women scholars who have qualified themselves by long years of graduate study for advanced teaching. Even the old-fashioned untrained matron, or house-mother, is swiftly being replaced in girls' schools, as well as in women's colleges, by the college-bred warden or director.

Unmarried men are now teaching in all colleges for women. The experience of Bryn Mawr has proved that men of the highest scholarly reputation are not only willing to accept positions in a college for women, but that they decline to resign them except for the most tempting posts in colleges for men.

This year, after respectively twenty-one and eighteen years of service, we are losing to the Johns Hopkins University, which creates special chairs for them, our senior professors of teutonic philology and history. No college for men and women, as slenderly endowed as are all our women's colleges, can hold for a lifetime the few productive scholars in any given science. Such men are entitled to the highest salaries and the best positions their country can bestow. Bryn Mawr has also proved that a faculty composed of such men has no hesitation in working under a woman president, or under women scholars as heads of departments when they too are eminent. In the world of intellect eminence is so rare, and excellence of any kind so difficult to attain, that when we are dealing with intellectual values, or genuine scholarly, literary, or artistic excellence, the question of sex tends to become as unimportant to men as to women.

We did not know when we began whether women's health could stand the strain of college education. We were haunted in those early days by the clanging chains of that gloomy little specter, Dr. Edward H. Clarke's *Sex in education*. With trepidation of spirit I made my mother read it, and was much cheered by her remark that, as neither she, nor any of the women she knew, had ever seen girls or women of the kind described in Dr. Clark's book, we might as well act as if they did not exist. Still, we did not *know* whether colleges might not produce a crop of just such invalids. Doctors insisted that they would. We women could not be sure until we had tried the experiment. Now we have tried it, and tried it for more than a generation, and we know that college women are not only not invalids, but that they are better physically than other women in their own class of life. We know that girls are growing stronger and more athletic. Girls enter college each year in better physical condition. For the past four years I have myself questioned closely all our entering classes, and often their mothers as well. I find that an average of sixty per cent. enter college absolutely and in every respect well, and that less than thirty per cent. make, or need to make, any periodic difference whatever in exercise, or study, from year's end

to year's end. This result is very different from that obtained by physicians and others writing in recent magazines and medical journals. These alarmists give grewsome statistics from high schools and women's colleges, which they are very careful not to name. Probably they are investigating girls whose general hygienic conditions are bad. The brothers of such girls would undoubtedly make as poor a showing physically when compared to Harvard and Yale men, or the boys of Groton or St. Paul's, as their sisters make when compared to Bryn Mawr students. Certainly their sisters who have not been to high school or college would in all probability be even more invalidated and abnormal. Seventy per cent. of the Bryn Mawr students come from private schools and from homes where the nutrition and sanitary conditions are excellent. They have undoubtedly been subjected up to the age of nearly nineteen to strenuous and prolonged college preparation, yet their physical condition is far above that of the girls of these other investigations. One investigation yields the shocking result that sixty-six per cent. of college freshmen are practically invalids during certain times in each month, and another that seventy-three per cent. of high school girls are in similar condition. If such results are to be credited, the explanation must be found, as I have said, in the general mal-nutrition and unsanitary life of such girls. Here, as so often when women are investigated, causes which would produce ill-health in boys are not excluded. Surely the Bryn Mawr students approach much more nearly to the normal type. Those other girls are horribly abnormal.

We did not really know anything about even the ordinary everyday intellectual capacity of women when we began to educate them. We were not even sure that they inherited their intellects from their fathers as well as from their mothers. We were told that their brains were too light, their foreheads too small, their reasoning powers too defective, their emotions too easily worked upon to make good students. None of these things has proved true. Perhaps the most wonderful thing of all to have come true is the wholly unexpected, but altogether delightful, mental ability shown by women college students.

We should have been satisfied if they had been proved to be only a little less good than men college students, but, tested by every known test of examination or classroom recitation, women have proved themselves equal to men, even slightly superior. It is more like a fairy story than ever to discover that they are not only as good, but even a little better. When this came to be clearly recognized, as was the case early in the movement, we were asked to remember that those first women students were a picked class, and could not fairly be compared to average men students. But now in many colleges, such as Chicago, the numbers of men and women are practically equal, and many of the women who attend college to-day have not the bread and butter incentive of men to do well in their classes, yet the slight superiority continues. Year after year, for example, Chicago reports fewer absences and fewer conditions incurred by women than by men in the same classes. This success of women in college work is producing a curious situation in men's education which is beginning to make itself felt in coeducational colleges.

We are now living in the midst of great and, I believe on the whole beneficent, social changes which are preparing the way for the coming economic independence of women. Like the closely allied diminishing birth rate,² but unlike the higher education of women, this great change in opinion and practise seems to have come about almost without our knowledge, certainly without our conscious coöperation. The passionate desire of the women of my generation for a college education seems, as we study it now in the light of coming events, to have been a part of this greater movement.

In order to prepare for this economic independence, we should expect to see what is now taking place. Colleges for

² The diminishing birth rate is closely allied to the economic independence of women only in the sense that it seems to make it more immediately feasible and more imperatively necessary. It is not allied to it in any sense in the relation of a consequence to a cause, as is often incorrectly stated. The diminishing birth rate seems to have come about without the slightest reference to women's occupation, or desire for occupation. It operates as drastically in countries and in classes of society where women have no occupation.

women and college departments of coeducational universities are attended by ever-increasing numbers of women students. In seven of the largest western universities women already outnumber men in the college departments.

A liberal college course prepares women for their great profession of teaching. College women have proved to be such admirably efficient teachers that they are driving other women out of the field. Until other means of self-support are as easy for women as teaching, more and more women who intend to teach will go to college. Such women will elect first of all the subjects taught by women in the high schools, such as Latin, history, and the languages. They will avoid chemistry, physics, and other sciences which are usually taught by men. Until all women become self-supporting, more women than men will go to college for culture, especially in the west, and such women will tend to elect the great disciplinary studies which men neglect because they are intrinsically more difficult and seem at first sight less practical. For these obvious reasons certain college courses are therefore already crowded by women and almost deserted by men in many of the coeducational universities.

Certain college presidents and professors are busily at work drawing conclusions as to the primary difference between men's and women's minds because different electives are chosen by men and women in coeducational colleges. But, if we compare the electives of men and women in the best separate colleges in the east, where more men are studying for culture, we find that the same electives are chosen by men at Harvard, Yale and Princeton, and by women at Vassar, Wellesley and Bryn Mawr. I was greatly struck by this similarity as illustrated by the elective charts of men's colleges at the St. Louis Exposition in 1904. If we exclude all required work, and examine the group studies chosen by all the women who have been graduated from Bryn Mawr, up to and including June, 1906, we find that each of the 783 graduates had the option of two group studies to be pursued five hours a week each for two years after election. Thus there were open to the 783 graduates 1566 possible group choices. Of these, Latin has obtained 35 per

cent., economics 29 per cent., history 26 per cent., Greek 19 per cent., English 16.73, French 16.34, German 13, chemistry 12, biology 10, and so on. These choices, and others like them, should suffice to refute the often-repeated statement that women desert economics, chemistry, mathematics, and such supposedly masculine subjects, and crowd into English literature and foreign language courses because they are women. As so frequently happens in women's education, external circumstances have been mistaken for *a priori* causes. In western state universities, where it has been observed that women do not as a rule elect economics and science, such subjects are said by women students—at least if I may credit what has been repeatedly told me by many of our western graduate students—to be taught very differently from the way in which they are taught at Bryn Mawr, or, of course, at any eastern college for men, or women, where theoretical knowledge and intellectual training are the chief aim of a liberal college course. I am told that economics in many western colleges is simply applied economics and deals almost exclusively with banking, railroad rates, etc., and is therefore, of course, not elected by women who are at present unable to use it practically, whereas in the eastern colleges for women theoretical economics is perhaps their favorite study. In the same way, chemistry, which is a close second at Bryn Mawr to German as an elective study, is taught in the college departments of many western universities, as it is taught in many industrial or trade schools in the east, as a preparation for pharmacy or dyeing industries, and equally of course is not elected by women, who cannot as yet make practical use of such training. Surely this is a more reasonable explanation for the different choices of electives by women in the east and west than what seems to me the improbable one that women will not elect certain subjects, even if they would otherwise desire them, because they dislike to work in classes with men. Still more improbable seems the statement that men, who are eager to study literature and French and German, deny themselves because there are too many women in the classroom. The fact seems to me to be that women and men in the west and east elect what suits their needs best.

If the present practical tendency in teaching certain large and important groups of studies continues in state universities, I believe that not only western women but all western men who wish a liberal college education in science, economics, mathematics, and other subjects must seek it in eastern colleges.

These three developments in women's college education have brought about a situation which is much misunderstood and yet is perfectly natural. Women are beginning, as I have said, to outnumber men in college departments. Women elect in larger numbers than men, for the reasons I have already given, certain very important disciplinary studies, and many such courses contain almost no men. Women do slightly better than men in daily recitations in spite of their supposedly less good health, they are absent less often from their college classes; and they get an average of higher marks in the examinations. None of this is very pleasing to men students, especially in the east, where young men have been taught to look down on women. Men are said in consequence—with some truth, I think—to show a tendency to prefer separate colleges. It would be only human if they did—annoying as it is. Men teaching in eastern colleges undoubtedly sympathize with, and sometimes encourage this feeling. Women students also resent this attitude on the part of professors and students, and seem to prefer women's colleges, where they feel that they have rights, and where they are the chief, instead of only the secondary, interest of their professors. Every now and then we hear mutterings of discontent from one or another coeducational college. Usually it is some eastern man, called to teach in a western coeducational college, thrown off his balance by the shock, running amuck through the pages of some eastern magazine.

There have been, however, but few visible manifestations of this feeling. Western Reserve University is, I believe, the only western college which has separated out its women into an annex. At Leland Stanford and Wesleyan the number of women is now limited. At Chicago the recent separation of men and women in the freshman and sophomore years was undoubtedly due to the great increase of women and to the

fear that because of it men would begin to leave the college. President Hamilton of Tufts College, which has long been open to women, in his last president's report argues the whole question dispassionately and concludes that both men and women are diminishing in numbers in Tufts because of each other's presence. He recommends an annex for women. In a lecture room at Tufts last spring I saw about twenty girls and five or six boys. The boys were huddled together in a corner just as we women used to huddle together in the old days of coeducation at Cornell. I foresaw then that there would come at Tufts in the near future what is so unjustly called a "set-back" for women's education.

We need not disturb ourselves over these readjustments to new conditions. They have no significance for the main question. Women's college education has succeeded too well—that is the whole trouble. And its overwhelming success makes its continuance sure. No institution which has begun to educate women has yet thought of giving up the responsibility. Instead, each year more colleges for men are assuming fresh responsibilities towards women. Undoubtedly the form of women's college education may change somewhat. Affiliated colleges or annexes will tend to increase, as well as separate colleges for women. Sporadic cases of segregation, as in Chicago, will tend to occur. All forms of education are good, if not equally good. The main thing we are concerned with is to get these thousands of women educated by any method at all.

And just because women have shown such an aptitude for a true college education and such delight in it, we must be careful to maintain it for them in its integrity. We must see to it that its disciplinary quality is not lowered by the insertion of so-called practical courses which are falsely supposed to prepare for life. Women are rapidly coming to control women's college education. It rests with us to decide whether we shall barter for a mess of pottage the inheritance of the girls of this generation which the girls of my generation agonized to obtain for themselves and for other girls.

Up to this time women's colleges have been wisely conserva-

tive. They have not been led away by the fallacies of the free elective system. At the present time all the colleges for women except Vassar—which, however, requires twenty-one disciplinary hours out of the entire college course of fifty-six hours—are working under the group system. One by one the men's colleges and coeducational colleges are swinging into line, and adopting some form of the group system in the recoil from the elective system which is fast becoming a stampede. Even Harvard held up both hands last year when it adopted the so-called "bachelor's degree with distinction."

Vast intellectual harm has been done to this generation of college students by unrestricted free electives. On account of their conservatism the present generation of college women are really better educated and will, I believe, prove themselves to be more efficient than college men.

Likewise women's colleges, including the affiliated colleges of Radcliffe and Barnard (which really ought not, one would think, to presume to vary from their parent universities), have steadfastly maintained the four-years' college course. As in the case of the free elective system, men's colleges will, I feel sure, return from following after false gods.

There is, however, one grave peril which must be averted from women's education at all hazards. Most of the universities of the west and many eastern universities, like Cornell, Columbia, and Pennsylvania, are boring thru their academic college course at a hundred places with professional courses. In many colleges everything that is desirable for a human being to learn to do counts towards the bachelor's degree—ladder work in the gymnasium (why not going upstairs?), swimming in the tank (why not one's morning bath?), cataloging in the library (why not one's letter home?).

People who used to believe in the free elective system used to believe also that all studies one could elect were equally good for purposes of mental training and discipline. Indeed, the free elective system could not have existed for a moment on any other hypothesis. There never was any real reason given for this belief. The presidents of Harvard and of other free

elective colleges just said so, and said so over and over again, until every one came to think that it must be so.

Now, however, we have been trying the experiment of acting as if it were so in our men's colleges for over a generation, and we know that it is *not* so. No one can read the educational articles and addresses based on practical experience with college students which have appeared, say since 1900, and not become convinced of this.

Indeed, I personally have come to regard this vitally important question in education as now settled by this very costly method of practical experience for most truly intelligent and open-minded people. I am in consequence astounded to see the efforts which have been made within the past few years, and perhaps never more persistently than during the past year, to persuade, I might almost say to compel, those in charge of women's education to riddle the college curriculum of women with hygiene and sanitary drainage and domestic science and child-study, and all the rest of the so-called practical studies.

The argument is a specious one at first sight and seems reasonable. It is urged that college courses for women should be less varied than for men and should fit them primarily for the two great vocations of women, marriage, or teaching, the training of children in the home, or in the schoolroom. Nothing more disastrous for women, or for men, can be conceived of than this specialized education of women as a sex. It has been wholly overlooked that any form of specialized education which differs from men's education, will tend to unfit women in less than a generation to teach their own boys at home, as well as, of course, other boys in the schoolroom. Women so educated will eventually be driven out of the teaching profession, or confined wholly to the teaching of girls. But there is a more far-reaching answer to this short-sighted demand for specialized women's courses. If fifty per cent. of college women are to marry, and nearly forty per cent. are to bear and rear children, such women cannot conceivably be given an education too broad, too high, or too deep, to fit them to become the educated mothers of the future race of men and women to be born of edu-

cated parents. Somehow or other such mothers must be made familiar with the great mass of inherited knowledge which is handed on from generation to generation of civilized educated men. They must think straight, judge wisely, and reverence truth; and they must teach such clear and wise and reverent thinking to their children. And we have only the four years of the college course to impart such knowledge to women who are to be mothers. If it is true—and it is absolutely true—that all subjects do not train the mind and heart and intellect equally well, it is unalterably true that sanitary and domestic science are not among the great disciplinary race studies. The place for such studies, and they undoubtedly have an important place, is *after* the college course, not during it. They belong with law, medicine, dentistry, engineering, architecture, agriculture in the professional school, not in the college. If they are introduced into the college course of liberal training in any fashion whatsoever, our present efficient college woman, like the old-fashioned type of efficient college man, will become a tradition of the past.

And for college women who may be teachers as well as for those who may be mothers, any form of special education is also highly objectionable. If the education of women is directed mainly, or exclusively, towards the profession of teaching, their specialized training will drive women who must support themselves into the teaching profession without regard to their special qualifications for teaching, which will be an overwhelming misfortune for the women themselves as well as for the children they teach. If women are to support themselves even as generally as they do now (and there will undoubtedly be many more self-supporting women in the immediate future) they must find entrance into the professions and into various kinds of business activity. Their education must be at least as varied and open to modification as men's education.

But the indications of successive editions of the census in all civilized countries and many other signs of the times make us sure that in two or three generations practically all women will either support themselves, or engage in some form of civic activity. I have said that about fifty per cent. of college women

will marry. We know now that college women marry in about the same proportion, and have about the same number of children as their sisters and cousins who have not been to college. We know also that no one nowadays has more than about two children per marriage—neither college men, nor college women, nor the brothers or sisters of college men and women who have not been to college, nor native white American families, nor American immigrant families in the second generation. This great diminution in the birth rate has taken place notably in the United States, France, Great Britain, and Australia, and is manifesting itself in lesser, but ever increasing degrees, in all other civilized countries. In bringing about this great social change college women have borne no appreciable part. Indeed, only one-half a college woman in every 1000 women is married, the ratio of college women to other women being as 1 to 1000. Although this diminishing birth rate is wholly independent of women's college education, it can not fail to effect it greatly. If it is true, as it seems to be, that college women who marry will have on an average only two children apiece, they could not, if they wished, spend all their time in caring for these two rapidly growing up children, who, moreover, after ten years will be at school, unless they perform also the actual manual labor of their households. In such cases women will presumably prefer to do other work in order to be able to pay wages to have this manual labor done for them. No college-bred man would be willing day after day to shovel coal in his cellar, or to curry and harness his horses, if by more intellectual and interesting labor he could earn enough to pay to have it done for him. Nor will college women be willing to do household drudgery if it can be avoided. Such married women must, therefore, also be prepared for self-support. Likewise the increasingly small proportion of the married fifty per cent. who will marry men able to support them and their two children in comfort will not wish to be idle. They too must be prepared for some form of public service. Of course, the fifty per cent. of college women who do not marry, that is, all except the very few who will in-

herit fortunes large enough to live on thruout life, must be prepared for self-support.

It seems, therefore, self-evident that practically all women, like practically all men, must look forward after leaving college to some form of public service, whether paid, as it will be for the great majority of both men and women, or unpaid, does not matter. Why should not women, like liberally educated men, fit themselves after college for their special work? When their life-work is more or less determined, let those women who expect to marry and keep their own houses (after all, the women householders will be only about half even of those who marry, say twenty-five per cent. of all college women) study domestic and sanitary science. But it is as unreasonable to compel all women to study it irrespective of their future work as it would be to compel all men to study dentistry or medicine. It is the same with child-study and all other specialized studies. They belong, one and all, in the graduate professional school.

How do these economic conditions affect women's entrance into the professional schools already in existence for men? Everything seems to indicate, as I have pointed out, that women will not only make their way into all except a few of the trades and professions, but that they will be compelled by economic causes beyond their control to stay in them after marriage. Already in teaching, nursing, library work, typewriting, bookkeeping, telephoning, telegraphing, they are steadily taking possession and driving men before them. It is already clear that all professional and trade schools must admit women. No separate schools will be founded for them. The few university professional schools of law, medicine, theology, and architecture now closed will open, probably within the next decade. Separate professional schools for women are an anachronism. The expense of maintaining them is too vast. Indeed, women's medical schools were only brought into existence by the savage prejudices of many men physicians. They are now almost extinct.

All university graduate schools of philosophy, with two comparatively unimportant exceptions, admit women. The

only great graduate school closed, that of the Johns Hopkins University, opened this autumn.³ Forty-one out of 453 universities and colleges maintain graduate schools, and of these only 24 have conferred more than seven doctor's degrees apiece. Of these 24 which alone are to be seriously considered, only four, Virginia, Princeton, and two Catholic universities, exclude women. But Virginia and Princeton taken together have conferred only 54 doctors' degrees out of 2715, the total number of degrees conferred. Of the remaining 17 universities conferring less than seven degrees apiece, the five which exclude women have no organized graduate work and only one has conferred in all four degrees.

Among these 41 universities conferring the Ph.D. degree there is only one women's college, Bryn Mawr. Bryn Mawr ranks sixteenth in the attendance of graduate students and nineteenth in the number of degrees conferred. It is the third largest graduate school for women in the United States, only Columbia, Chicago, and California containing more graduate women. It has twice as many as Yale or Cornell.

This brings us squarely face to face with a vitally important question in women's education. Shall our colleges for women maintain graduate schools of philosophy and confer Ph.D. degrees? The experience of Bryn Mawr has shown that women will choose to pursue graduate work in such schools if they come into existence, and it has also shown that a Ph.D. from a women's college has a commercial value equal to that given by the oldest and most richly endowed men's universities. I regard the question as to all other professional schools as settled. It would be unwise and harmful to women's professional standing for women's colleges to maintain them. They must be coeducational. Is this the case also with schools of philosophy? I think not. The conditions are wholly different. From one-third to one-half of all the students studying in our women's colleges expect to teach. They must be prepared by advanced work in their special subjects beyond the A.B. degree. Only one-seventh of the men and women studying in graduate schools take the doctor's degree. The re-

³ These statistics are taken from *Science*, August 30, 1907, p. 276 ff, "Doctorates conferred by American universities."

maining six-sevenths are studying only for a year or two to prepare for teaching. Many more women will go on with advanced work if they can go on at the college where they have taken their undergraduate work. The experience of men's colleges has proved this. Far more women are now taking college courses in Smith, Wellesley, Vassar, Mount Holyoke, Bryn Mawr, Radcliffe, and Barnard than anywhere else in the east. In only three of the seven, Bryn Mawr, Radcliffe, and Barnard, can women really fit themselves for teaching. It seems to me inevitable that the other four colleges for women will provide these opportunities.

But it is not only for the graduate students that the graduate school is needed. It is needed most of all for the undergraduate students. I do not believe that the best undergraduate teaching is ever given in a college where the professors do not also conduct research and investigation courses. In no other way, I believe, can a faculty of enthusiastic scholars abreast of modern scientific methods be maintained. Such scholars make infinitely better teachers for college students, and even for children in a kindergarten, if they were attainable. It is impossible for a teacher of any kind to know too much. Also, a progressive graduate school weeds out non-productive scholars from a college as nothing else will. Already there are signs of the great colleges for women taking on this true university function. Vassar, Wellesley, Smith, and Mount Holyoke have already created a few resident graduate scholarships and fellowships.

I believe also that every women's college ought to maintain not only a graduate school of philosophy of the highest grade, but also for holders of the bachelor's degree only a purely graduate school of education connected with a small practise school like the famous practise school of the University of Jena. Only so can we make true and inspired teachers of this vast throng of women going out of our women's colleges into the schoolrooms of the country. The fate of the next generation of children is in their eager hands. It is our mission to see to it that they are as enlightened and as truly wise as they

are eager. I know of no way except by teaching them in our graduate schools to reverence abstract truth.

But there is still another and, as it seems to me, more cogent reason for our women's colleges maintaining graduate schools of philosophy. The highest service which colleges can render to their time is to discover and foster imaginative and constructive genius. Such genius unquestionably needs opportunity for its highest development. This is peculiarly the case with women students. As I watch their gallant struggles I sometimes think that the very stars in their courses are conspiring against them. Women scholars can assist women students, as men can not, to tide over the first discouragements of a life of intellectual renunciation. Ability of the kind I am speaking of is, of course, very rare, but for this reason it is precious beyond all other human products. If the graduate schools of women's colleges could develop one single woman of Galton's "X" type—say a Madame Curié, or a Madame Kovalevsky born under a happier star—they would have done more for human advancement than if they had turned out thousands of ordinary college graduates.

The time has now come for those of us who are in control of women's education to bend ourselves to the task of creating academic conditions favorable for the development of this kind of creative ability. We should at once begin to found research chairs for women at all our women's colleges, with three or four hours a week research teaching and the rest of the time free for independent investigation. We should reserve all the traveling fellowships in our gift for women who have given evidence, however slight, of power to do research work. We should bring pressure on our state universities to give such women opportunities to compete for professors' chairs. In the four woman suffrage states this can be accomplished in the twinkling of an eye: it will only be necessary for women's organizations to vote for university regents with proper opinions. The Johns Hopkins University situated in conservative Baltimore has two women on its academic staff who are lecturing to men. Why can not all chairs in the arts departments of universities, that is, in the college and school of philosophy, be

thrown open to the competition of women? This is the next advance to be made in women's education—the last and greatest battle to be won.

But have women ability of this highest kind to be developed? Can they compete successfully with men in the field of original and productive scholarship? Before this pertinent question even our dearest friends among coll ge presidents and professors who are generously educating women balk and shy and lose themselves in a maze of platitudes about women's receptive and unorigina ve minds.⁴ But what do we ourselves, what do we women, think? I for one am sure that women possess this ability. My opinion has been greatly strengthened by the scientific and sociological investigations of the past few years. Recent studies in heredity, including the work on Mendel's law, seem to me to show conclusively that boys and girls inherit equally from both mothers and fathers in mathematical proportion, that a woman's place in the inheritance and transmission of physical, mental and moral qualities is precisely the same as a man's, that she is discriminated against in no way. Sociological investigations such as Professor Odin's exhaustive study of 6382 French men and women of talent, Mr. Havelock Ellis's study of 902 British men and women of genius, Professor Cattell's statistical study of 1000 American scientific men, and other studies show us for the first time that favorable conditions of intellectual life are immensely important factors in the manifestation of men's genius and talent.⁵ In many parts of our own country a man of great intellectual ability has scarcely any chance at all of emerging. Massachu-

⁴ See President David Starr Jordan, "The higher education of women," *Popular science monthly*, December, 1902, p. 97 ff. (See especially pp. 100 and 106.)

⁵ See Professor Alfred Odin, "Gen se des grandes hommes, gens de lettres fran ais modernes," Vol. 1, Paris, 1895, Vol. 2, Lausanne, 1895; quoted very fully in Lester F. Ward's "Applied sociology," p. 143 ff; also Mr. Havelock Ellis, "Study of British genius," *Popular science monthly*, February, 1901, p. 372 ff; March, p. 540 ff; April, p. 595 ff; May, p. 59 ff; June, p. 209 ff; July, p. 266 ff; August, p. 373 ff; September, p. 441 ff; also Professor J. McKeen Cattell, "A statistical study of American men of science," *Science*, November 23, 1906, p. 658 ff; November 30, p. 699 ff; December 7, p. 732 ff.

setts, for example, has 108.8 eminent men of science for every million of its population, while my own adopted state of Pennsylvania has only 22.7 per million; in Georgia the proportion dwindles to 2.8 and in Mississippi to only 1.3 per million.

But only women know how true it is that in the development of the highest scientific and scholarly qualifications women have today far less favorable conditions than even men in Mississippi.

Mr. Havelock Ellis found that in Great Britain women of genius formed only one-twentieth of the whole number. Professor Odin found that in France women of talent were in precisely the same proportion, only one-twentieth of the whole number, but that women furnished 29 per cent. of eminent actors, and 20 per cent. of all prose writers of distinction. In Great Britain likewise 53 per cent. of all women of genius were authors, and 30 per cent. actors. The explanation is clear. Women of genius and talent had more opportunity to come to the surface in these two professions. In all probability the same proportion of women of genius and talent were born with aptitude for scientific research, but were crushed by their unfavorable environment.

It seems to me then to rest with us, the college women of this generation, to see to it that the girls of the next generation are given favorable conditions for this higher kind of scholarly development. To advance the bounds of human knowledge, however little, is to exercise our highest human faculty. There is no more altruistic satisfaction, no purer delight. I am convinced that we can do no more useful work than this—to make it possible for the few women of creative and constructive genius born in any generation to join the few men of genius in their generation in the service of their common race.

M. CAREY THOMAS .

BRYN MAWR COLLEGE

VIII

DISCUSSION

EDUCATIONAL NEEDS OF THE SUNDAY SCHOOL

It has long been a fact obvious to all thoughtful persons that religious teaching is in a state of transition. It is foolish for the ultra-conservatives to deny that not only is an increasingly large number of intelligent people deterred from teaching in the Sunday schools and other departments of the orthodox churches, but that among the active and interested workers themselves there is a feeling of embarrassment amounting almost to conscious dishonesty in teaching to others views which they themselves have partly or wholly outgrown. The organization several years ago of a new Religious Education Association was sufficient evidence that to a large class of best educated Christians a new scheme of instruction from that taught in the Evangelical Sunday schools is deemed necessary. It is not merely a question of regrading, reclassifying, and applying to Sunday school methods the best and latest devices of educational theory. In many places the material equipment of the Sunday school is satisfactory. The difficulty is a deeper and more critical one. It is that of revision of content of that which is taught. Many reasons have been advanced to account for the lax interest, the almost inertia that exists among large groups of people, themselves of religious rearing, concerning the work of the Sunday school and the church. The usual explanation from the standpoint of the clergy is the selfishness, worldliness, the materialistic character of the age. These causes may indeed apply to some cases, but it is a mistake to omit as perhaps the chief cause the intellectual difficulty of teaching views which are virtually discredited and repudiated by intelligent people.

The first indictment that may properly be made against the

work of the Evangelical Sunday school is a large element of insincerity in the teaching. There can be no doubt that in many cases the teaching lags behind the real knowledge of the teacher. Many who have outgrown the crude and literal interpretations of earlier years, into whose minds religious truths have entered in new forms, are seemingly afraid to impart their real light to their young hearers. When they come before their classes in the Sunday school they feel obligated to give them not the fresh views that have proved more satisfactory to themselves, but the traditional statements of orthodoxy in which most of them were reared. This may be due to a strained sense of loyalty to their church organization or to a feeling that these older views are commonly reputed to be safer for children, but in any case the results can be only bad. They are bad first of all because of the insincerity in the teacher himself. No amount of juggling and trimming for the sake of expediency can justify one in teaching as true what he knows to be false, in teaching as fact what he knows to be myth. In the second place, such teaching is in the end ineffective. One can not teach satisfactorily and effectually that which he only half-heartedly believes himself. The secret of the wonderful power that the religious preaching and teaching of the fathers had over their hearers was just in this fact that they believed with all the intensity of conviction every word which they uttered. The results are bad, moreover and chiefly, because of the great wrong that is thus done to the child's future. The time must inevitably come to those young people who read and think when they will awake to the superficiality and falsity of such teaching, and when that awakening comes the reaction will probably be more radical than it would have been had they been properly enlightened in the first place. The pendulum will swing so far that in rejecting these feeble and narrow views of spiritual truths they will in many cases be led to reject all versions of it. That this is a real danger can be seen by daily observation. It accounts for the absolute scepticism and agnosticism of many, and it also accounts for the fact often noted, that the most confirmed infidels frequently spring from just those narrow denominational schools and

influences that refuse obstinately to open to the light of more modern and better conceptions of the religious life.

A second indictment against the Evangelical Sunday school is the actual deficiency of knowledge in the majority of instructors. Many things, to be sure, are still in doubt in matters of religious belief, and there are still "more mysteries in heaven and earth than are known to our philosophy." But, nevertheless, there are some questions as to which the critical study and research of years as well as the moral and literary intuition of men have brought definite results. No reputable teacher of theology or apologetics in an orthodox denominational school would any longer seriously attempt to uphold the old theory of inspiration according to which the truths of the Bible were handed ready-made to a chosen people, according to which the sacred writers worked simply as amanuenses of God; or the old teaching of the marvelous and detailed fulfilment in the New Testament of prophetic predictions in the Old—once deemed a great test of the supernatural character of the Christian revelation; or the views on Eschatology once held by Christian believers and by some of the Apostles themselves but which have been repudiated by actual history as well as by a more intelligent and spiritual understanding of the symbolism of the New Testament. Many, at least, of the so-called miracles of the Bible, particularly of the Old Testament, are universally regarded as myths and many of the miracles of Jesus and his disciples are now readily explained by a better knowledge of such phenomena as we have in hypnotic suggestion and the laws of psychic influence and control. And whatever may be one's peculiar feeling and attitude towards inspiration there is no longer any serious disagreement as to the fact that the moral and spiritual institutions of the Jews were wrought out and developed thru generations of experience and were not the sudden acquisition from a foreign, supernatural source. Even so redoubtable a champion of orthodoxy as Professor Sayce, in his *Monuments and the higher criticism*, written expressly to foster the conservative view of the Bible, says frankly that the Jewish Sabbath, for example, was borrowed from a conception common to all the Chaldean and Assyrian

peoples; that this setting aside of one day in seven—however much of worth and moral dignity were stamped upon the institution by the earnest Israelites—is but a reflection of the common superstitious regard for certain numbers as sacred.

The attempt is no longer even made in respectable theological circles to prove the divine character of the Christian Revelation by an appeal to miracles and to the fulfilment of prophecy. The consensus of educated opinion everywhere is that the prophets of Judea and Israel were merely preachers of righteousness who represented God to their own generations. They did not essay, like magic soothsayers, to deal in miraculous predictions of future events either in the life of Christ or that of their nation. The ingenious method of harmonizing every detail of the life of Jesus with some Old Testament prophetic utterance, of which there is unquestionable evidence in the narratives of the Evangels, is to be regarded, as Percy Gardiner has well shown in his *Historic view of the New Testament*, as a perversion and degradation of Jewish prophecy. While there can never be any other than one verdict as to the sublime and unique greatness of this prophecy, it is now conceded as certain that the synoptic writers were under the dominion of unsatisfactory, narrow, and materialistic ways of regarding it.

Similarly, in the treatment of miracles, it may safely be said that there is no longer any disposition on the part of competent thinkers, however orthodox, to accept the plainly mythical stories of the Bible that record the suspension of what the uniform experience of the race has led it to denominate "laws of the physical universe" as literal facts. The common character of these legendary accounts with similar myths of all neighboring peoples and faiths is now frankly admitted by modern scholarship and even regarding the miracles of the New Testament, once deemed absolutely essential, the attitude is very latitudinarian. Says Hermann Schultz, in his *Outline of Christian apologetics*,—a work fairly representative of conservative modern scholarship among the orthodox: "It can not be the task of apologetics to defend miracles *contra naturam* as a presupposition of revelation, particularly the

Christian. It understands that our age, in distinction from that of antiquity, is so strongly penetrated by the scientific view of the course of nature that hardly an educated man among us would let himself be convinced, even if he were an eyewitness, that he had experienced a miracle and not something that he merely could not understand at the time. And the narratives of devout folks with no aptitude for science can not impose on us the duty of looking on the literal historicity of the marvels reported by them as an essential part of Christian faith, willing tho we may be to bow our spirits to the enthusiasm and piety of the narrators."

Now, while all this is but a conservative statement of views and positions about which there is substantial agreement among thinkers everywhere, we look in vain for any accompanying change in the teaching of the Evangelical Sunday schools. They seem scarcely to have felt the influence of these better views, or to be aware of their existence. One might well suppose that—even granting that there were no such general agreement as has been herein claimed, granting that all these were still perfectly open questions—one might well suppose that, in view of the mental difficulties most apparent as to accepting these literal statements, subjects of study could be chosen from the Bible setting forth the beautiful ethical and spiritual teaching and influence of Jesus and his followers, without involving the mythical element, or at any rate without making this the most prominent and essential element. But not so. The committee having in charge from time to time the outlining of topics for study in the International Sunday Lesson, seem determined to keep just this mythical, this so-called supernatural element to the fore, doggedly ignoring all that even conservative Biblical scholarship has had to say. During the past year a glance at the Sunday school journals shows the following among other topics:—The angel stirring the pool at Bethesda; The miracle at Cana—turning of the water into wine; The healing of the impotent man; Lazarus raised from the dead; The miraculous feeding of the five thousand, and many others of a similar type. And in the treatment accorded to these studies by the critical and explanatory notes of the

journals of the churches one looks in vain for any suggestion harmonizing them with the better knowledge of the present day. In the vast majority of cases, at least, they are taught in the blind, literal, traditional way, and youthful minds, that are at all curious and inquiring, are left to struggle with their doubts and difficulties as best they may, if indeed they are not warned that it is wrong for them to have doubts. In many cases the more persistent in groping for better standing ground are told that they are passing thru the initial stage of faith, the mental sophistry of youth, the experience common to all at the immature stage of knowledge.

It is not, of course, contended that every new and crude speculation should be immediately thrust upon the minds of children and young men and women. It is not contended or desired that a sceptical or too critically curious attitude of mind should be encouraged by those whose main purpose is indeed to give to their hearers a grasp of spiritual realities. It is a safe contention, however, that truth itself, and not any form of supposed expediency, should be the goal of all teaching. That they who are set to enlighten the minds of the young should impart to them the best and fullest views that have been revealed to themselves. It is a safe and earnest contention that any one standing as a prophet of God before others should, like the noble, historic prophets of Israel, have minds open to all truth and should give out fearlessly all the light that is in them. While there can be no denial that in many matters of religious belief we are still in a state of nebulous confusion, yet, be it repeated, some things have about past the stage of transition and are fairly definitely fixt. Many people are now experiencing the condition so sagaciously foreseen by Matthew Arnold when he said "There will be an interval between the time when men take the religion of the Bible to be a thaumaturgy and the time when they perceive it to be something different, in which they will be prone to throw aside the religion of the Bible altogether as a delusion. And this, again, will be the fault mainly—if fault that can be called which was an inevitable error—of the religious people themselves who, from the time of the Apostles downwards, have insisted upon it that religion shall

be a thaumaturgy or nothing. And very likely there will come a time when there will be less religion than even now."

How true these words were is verifiable on every hand to-day. Many are alienated from religious work simply because they have outgrown the old, narrow views criticised by Arnold. These views are still fostered nominally under the orthodox creeds even tho in reality those who repeat the creeds see their limitations. It is useless any longer to attribute indifference towards such teaching to worldliness or selfishness on the part of former adherents and zealous workers. There are multitudes of earnest, intelligent people who sincerely believe and would still be glad to teach the essential moral and spiritual truths of Christianity relieved of the *Aberglaube* that has gathered around them. The cry, "Back to Christ and the natural religion that he taught" is no mere cant but the serious slogan of honest souls. Surely, it would seem the time has come to stop trimming outworn statements, stop trying to pour new wine into old bottles until the bottles crack and fairly burst under the strain. What the age demands is honest, positive reconstruction. Surely the way of progress, of spirituality, the only really conservative way is to throw away the outworn scaffolding and build upon those foundations that remain fixt and sure.

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IX

REVIEWS

Congress of Arts and Sciences, Universal Exposition, St. Louis, 1904.
Volume VIII, Education and Religion. Edited by Howard J. Rogers,
Director of the Congresses. Boston, Houghton, Mifflin & Co., 1907, 493 p.
\$2.50 net.

Volume VIII of the *Proceedings of the congress of arts and sciences*, held at the Universal Exposition, at St. Louis, in 1904, has recently been received from the publishers of the series. This volume contains the addresses delivered before the Departments of Education and Religion of the Congress. The volume contains thirty-one principal addresses and a number of minor papers, a good index, and selected bibliographies covering each section of the two departments. An examination of the book makes it evident that it has been edited and printed with great care. A very meritorious feature of the editing is that each address is prefaced by a short biographical account of the speaker, giving the place and date of his birth, his education, the positions of importance which he has held, and a list of his published works. The collection of addresses is a very valuable one, and the student of education or of the broader aspects of religion, will desire to add a copy of the volume to his private collection. The various addresses are marked by a depth of insight, a breadth of view, and a clearness of statement which are not often found in so large a collection of public addresses. They contain little that is trite and commonplace.

It will not be possible, within the limits of this review, to mention each of the thirty-one main addresses and the various minor papers, so it will be necessary to select from the number and call particular attention to those addresses which seem to be of most importance: first, to the student of education; and, second, to the student of religion.

The first address under the Department of Education is one by President Hadley on *Educational methods and principles of the nineteenth century*. In this address President Hadley takes up one point in the history of education and elaborates it. He points out the changes which have come in our educational work as a result of the nineteenth-century emphasis of the individual as opposed to society. Personal efficiency has been erected as a goal in our educational work instead of the old dignified social standards. This has led us to adapt our education to individual aptitudes, has broken down the old forms of class schools, and has obliterated all sharp distinctions. The speaker thinks that we have reached an extreme in this direction, and ventures the prediction that the present-day emphasis of the individual will represent but an incident rather than a fundamental principle in the history of education. While deeply appreciative of the gains that have come to us from the emphasis of liberty in education, he, nevertheless, feels that the time has come for a partial return to the idea of social standards, and that our schools should now lay their "chief stress on the teaching of those ideas and methods, the training of those habits and emotions, which are essential to the well-being of the body politic." The point is one which those charged with the administration of schools should carefully consider. With such a flagrant disregard of right and duties as is to be seen on all sides in our national life today, there is the greatest need of such emphasis in our schools. A great reform is needed in our civic and social life, but this reform must first be taught to the new generation in our schools.

In the second address of the volume Bishop Spalding points out the unprecedented expansion of life and knowledge during the nineteenth century due to the rise of democracy, and how not single minds but whole peoples have been stirred to intellectual activity in this century of emancipation and the enlargement of all life. Our faith in liberty has led us to an enthusiasm for the spread of knowledge, and to the recognition of education as a civic right and as a postulate of democracy. The democratization of society has made plain the worth of

individuals as individuals, regardless of any mark or brand upon them, and at the same time has made clear the vital union of the individual with the social life of which he forms a part. He then points out how the higher Christian ideals need to permeate the whole of our educational work, and how the teachings of the greater and more fundamental truths of religion should form a part of our instruction. Bishop Spalding's plea is fervent, but at the same time, free from any narrow or limited point of view.

In the next section, that of educational theory, Professor Rein, of Jena, deals with *The place and office of pedagogy in the university*, and his statement as to the function and the purpose of teaching education is a good answer to the contention, still occasionally heard in certain of our universities from a few of the older and very narrowly learned professors, that there is nothing in education to make it worthy of a place in university instruction. He points out that much of the work of pedagogy, as he calls it, is a study of state needs and overlaps the field of state politics, and that one of the main functions of pedagogy in the university is to work out and apply ideal standards and to assist in the fashioning of the inner life of a people and the creation of productive energy for the nation. He shows how pedagogy, while possibly divisible among six or seven other fields, can not be so divided. On the contrary, it is a necessary synthesis, an application of parts of many fields of knowledge to a great state problem and a great state service. The work of the university is to organize, unify, and give out a better system than we now have, and to vitalize the pedagogy of the state.

In this connection Dr. Rein gives a good word of caution, a word particularly applicable to such nations as Germany and France, and to a certain extent to a few of our American states as well, that the state should take good heed that the science of pedagogy shall not suffer from a restricted growth, especially within the educational institutions of the state. Otherwise formalism, red tape, and dry rot are sure to follow.

Living in a country where the educational system is so minutely prescribed from above, as is the case in Germany, and

where the study of school administration as known in the United States does not exist, it is natural that Dr. Rein should have regarded pedagogy as primarily deduced from ethics and psychology, and have omitted the social aspect of pedagogy entirely. This omission Mr. Sadler, in a succeeding address, corrects by placing the social aspect of the school as of first importance.

Mr. Sadler's address on *The school in its relation to social organization and to national life*, is clear, concise, and to the point. This is characteristic of all that Mr. Sadler writes. The speaker points out clearly the sociological basis of public education, and calls attention to the great economic and social service of the elementary school. The changes which have come about as a result of free public education have been immense. It has opened new possibilities and helped the vigorous to rise. What is needed next is an extension of some form of education that will meet the needs of the residual social deposit. For this class the speaker feels that society must give up palliatives and attack the problem in a scientific manner, and as a great educational-engineering problem. The task will be a difficult one and the expenditure at the time will be enormous, but the problem could be solved in two generations if attacked in a scientific way. It is the problem of cleaning up Cuba applied to the residuum of society in our cities. When this is attempted, the social significance of the school will be more generally apparent than it is today. The school can not do the work alone, but when it is undertaken, the school will be found to be of first importance and indispensable as an ally.

Mr. Sadler points out, in the course of his address, how our present belief in schools is in part due to a desire to replace the educational influence of certain old educational traditions, how all these old historical traditions persist in part in our modern world, and then he reemphasizes the point made by Dr. Rein as to the danger of a narrow uniform state school system which would subvert the educational system so thoroly to a state purpose as to crush out most of these old historically helpful traditions. National unity, he says, is not the outcome of the work of the schools alone, tho in a democracy the

school is of first importance. It is the duty of the state to assume a broad and liberal attitude toward all forms and kinds of education. This address is worth reading and rereading.

In his address on *Present problems of the school*, Superintendent Maxwell lays down six fundamental propositions with reference to the relation of the state to the school, and discusses each one at some length. The key problem of them all is that of properly financing the educational system. The problems which he deals with are all practical problems of school administration.

Commissioner Brown, in a very able address, deals, on the contrary, with some of the *Present problems in the theory of education*. His subdivisions deal with educational research, election and prescription, cultural and vocational studies, guidance and spontaneity, the institutional relations of the modern school, the educational significance of modern democracy, and the different groups of psychological problems. His statement of these problems is good.

The address by President Hyde, of Bowdoin, on *The college*, is one of the best statements of the peculiar characteristics and work of the college, as distinguished from that of the university, which we have in print. His optimistic view of college life and college organizations would be good reading for most college and university professors. The functions of the college and the real dangers of college life are well stated. His description of the methods of teaching in the college as distinguished from the university, and his characterization of the college professor as distinguished from the university professor, are excellent. It is a pleasure to read the address of so enthusiastic an advocate of the college as a distinct feature of our higher educational system.

The address by Dean Perry, of Columbia, on the other hand, on *Present problems of the university*, points out the true function of the university as distinguished from the college. This function is to train some men to contribute to the sum of human knowledge. Whatever else a university does it must do this if it is to be a real university, and the recognition of this function as peculiarly their own is the bond of union of the

universities of the world. To infuse this ideal into the rising universities of our country is a duty now before us. The universities (of the whole world) "are peculiarly called upon to take all research under their protection, to train for it, and to encourage its practise." This requires plenty of money, proper organization, and thoroly prepared students.

In the Library Section, perhaps, the most noteworthy address is that of Director Biagi, of Florence, on *The past and future of the library*. After sketching the rise and development of libraries historically, Director Biagi passes to the future, which he thinks will be particularly marked by international coöperation, the application of photography, the use of the gramophone, and the far more extensive use of the card.

The Department of Religion of the Congress, the addresses before which constitute the second half of the volume before us, is made up of a series of addresses marked by so broad and so catholic a spirit that the ordinary churchman, clerical or lay, would be astonished at their liberality and breadth of view. Sectarianism and provincialism of all kinds find no place in these addresses, while, on the other hand, many of the speakers speak in terms of united Christianity or of a religion which ignores creeds and faiths. World righteousness and political and social service and uprightness are terms which the speakers use to replace the more terrifying terms of an older and narrower theology.

The address by Professor Peabody, of Harvard, on *The expansion of religion*, is a most excellent one. His point of view is that now is the time for the elimination of provincialism in religion and for the expansion and spiritualization of our ordinary religious life. Many of the theological differences between the different Christian sects are trivial in the extreme. The future should witness a deliverance from sectarianism, a great expansion in the conception of our missionary work, and a great expansion of practical religion into the fields of our social, industrial, and political life. The present offers a new opportunity for religion to justify its claim to leadership, and the place of religion in the modern world is

not along the quiet shores of the sea of life, but among the vicissitudes and storms. The industrial agitations of the present time are a challenge to the courage and the daring of the church. The political and industrial expansion of the nineteenth century has united the world and opened the way for the present age to appreciate the dimensions of the Kingdom of God. The address is a most wholesome one, and the world is in need of more such broad-minded preachers and teachers.

The address by President Charles Cuthbert Hall on *The teaching of theology*, is another remarkably broad and stimulating address. While giving sectarian organizations credit for their efficient local group activity, he, nevertheless, points out that the larger Christian movement of the present time derives its momentum from larger and more ultimate considerations than sectarian differences. In order that "this age-movement may advance beyond an unorganized groping into complete theological self-realization, it must be directed from centers of religious thinking where the science of Christian theology is studied and taught in an atmosphere exempt from theological tests."

Hence Dr. Hall's strong plea that theology shall be recognized as university work and studied and taught in our larger universities, places where the winds of freedom blow, and where the subject may be studied in the light of the more recent contributions from science, anthropology, modern philosophy, and the recently revealed experiences of Oriental peoples. All these have come into our thinking since the authoritative ecclesiastical interpretations of the various forms of the Christian faith, and what is needed now is a careful study and reorganization of our religious life in the light of these new facts and experiences. This can be done only in an atmosphere exempt from ecclesiastical tests and by men not subject to ecclesiastical discipline. Such an address as this ought to open a new vision to the teachers and preachers of our Christian faith.

The address by Professor E. C. Moore, of Harvard, on *The secular life as the expression of the religious spirit*, is another

address marked by clear insight and great breadth of view. Professor Moore points out the commonness of real religion and the universality of it in our life today, tho men often do not recognize that what they do is religious. Common life experiences and actions instead of religious devotion, deeds instead of prayers, worship amid nature and life instead of in the church, deeds of friendship, loyalty, honesty, and righteousness rather than peculiar religious works or specific sacred ideas, parental love, filial affection, the sacredness of home, honesty in trade, kindness to those in trouble—these are but a few of the many ways in which men live religion in their daily lives. The wholesome tone and breadth of view of this address make it one which many church people and ministers would do well to read.

Two addresses in the department have to do with moral and religious education and are of particular importance to the student of education. One is by Professor George A. Coe, of Northwestern on *The reasons and the functions of general religious education*; and the other is by Dr. Walter L. Hervey, of the New York schools, on *How may the teaching of religion be made potent for morality?*

Professor Coe's address is a good brief for religious instruction as such. He feels that the religious nature of children makes religious instruction imperative, and that "we ought to insist that this inevitable part of school influence be made intentional, deliberate, and amenable to our cherished faiths." The need of this is very evident, he says, because the religion of today is not adequate in quality or amount to meet the practical problems of the day. In the changing state of society a heavy strain has been put upon the bonds that protect property, family, and life itself. There is need of an infusion of religious life into society. All religious progress is progress within and toward the Kingdom of God. The reason for religious education, then, is the same as for education itself—it is education in a complete and proper sense. All will not agree with Professor Coe's reasoning or demands, but the article is worth reading as a brief on the side of religious teaching. Professor Coe would apparently have our

American schools follow the German practise and give direct instruction in religion, holding that such instruction as such possesses an efficacy which most schoolmen would be inclined to deny.

Dr. Hervey's address is a much more practical one, and is noteworthy as a treatment of the question. He says that no social institution can do its proper work without the stimulus of religion, and takes as his theme: "How religion may, thru education, be made to reënforce the agencies that make for righteousness." He then lays down three specific points at which religion may, in his judgment, be made to reënforce morality, and shows how each of these may be made a part of our regular school work. These three are (1) obedience and fidelity, (2) the sentiment of reverence, and (3) a responsive respect for institutions. Each of these points Dr. Hervey analyzes carefully, and he points out practical ways of teaching each. His consideration of the importance of teaching sentiment and the laws for teaching it is exceptionally good. The way to acquire a moral character, he says, is to become an efficient member of the institutions of society, and the service which the school can render here is of first importance. In closing, he quotes and emphasizes a statement of Dr. Butler's that the greatest service of religion to morality is that of giving "a fuller appreciation of what human institutions really mean and what tremendous moral issues and principles they involve."

Many of the other addresses contained in the volume are worthy of detailed mention, but must be omitted here for want of space. I have tried to call attention only to the more important ones, and would again emphasize the statement, made earlier in this article, that the volume is one which the student of education or of the broader aspects of religion will want to read and own. It is one of the particular noteworthy publications of the year.

ELLWOOD P. CUBBERLEY

STANFORD UNIVERSITY

After a long interval, the publishers have brought out a second edition of Ingraham's well-known *History of political economy*. Within a reasonably brief compass, the book gives all the information that a general reader or the average student should wish for. (New York: The Macmillan Company, 1907. 250 p. \$1.50 net.)

Slowly but surely music is making its way into schools and colleges as an integral element of the curriculum. Nothing has operated so powerfully to hold back this progress of music as the rather extraordinary educational deficiency of those who have chiefly sought to represent it. Of late years a marked change in this regard has been noticed, and a strong influence in promoting this change was the personality and work of Professor Paine of Harvard University. It is a genuine pleasure to have his lectures on the history of music in form for reading and use as a text-book. They may be unreservedly commended whether one is disposed to lay stress on breadth of view, splendid scholarship, or agreeable treatment. (*The history of music to the death of Schubert*, by John K. Paine. Boston: Ginn & Company, 1907. 314 p. \$2.40 net.)

Many schoolmen of an earlier day who remember General John Eaton, once United States Commissioner of Education, will turn with pleasure to his delightfully written reminiscences of the Civil War and of the period immediately following which contained in the posthumous publication entitled *Grant, Lincoln and the freedmen*, which has just come from the press. The book contains an unusual number of good stories of Lincoln and of Grant. (New York: Longmans, Green & Company, 1907. 331 p. \$2.)

A laborious undertaking which we are bound to say hardly seems to us to have paid for the doing is Putnam's *Tabular views of universal history*. (New York: G. P. Putnam's Sons, 1907. 313 p.)

A great deal of hard work has obviously gone into the making of *Medieval and modern history*, by Professor Dewe of the College of St. Thomas, at St. Paul, Minn. The treatment of

the difficult and disputed subjects that naturally have profound interest for a Roman Catholic writer is serious and broad-minded. The book will hardly displace the excellent textbooks covering the same field now in use, but it well deserves consideration as a supplementary book. (New York: Hinds, Noble and Eldridge, 1907. 518 p.)

In Macmillan's Pocket Classics come three delightful little volumes, namely: Lamb's *Tales from Shakespeare*, Stevenson's *Master of Ballantrae*, and Sheridan's *Plays*. (New York: The Macmillan Company, 1907. 25 cents each.)

A text-book which secondary school teachers of politics will find more than usually useful is *The community and the citizen*, by Arthur W. Dunn of Shortridge High School, Indianapolis, Ind. (Boston: D. C. Heath & Co., 1907. 256 p. 80 cents.)

It is not often that a child's book has sufficient individuality or significance to demand notice in a publication for teachers and students of education. A marked exception is *Redcoat Captain*, by the author of *Bob, son of Battle*. Both parents and teachers will be better for reading this book and will find themselves closer to certain phases of the child mind for having done so. (New York: The Macmillan Company, 1907. 200 p.)

An anonymous citizen of California having offered a prize for the best essay on moral training in the public schools, and a second prize for the next best essay, a competition was the result, for which more than three hundred writers submitted contributions. The two essays that received the first and second prizes and three others are now included in a volume which strangely enough is a unity of its own. *Moral training in the public schools* is distinctly worth reading and reading again. (Boston: Ginn & Company, 1907. 203 p. \$1.50 net.)

X

NOTES AND NEWS

Rural school supervision in New York.

Another forward step is planned by the Department of Education of the State of New York for the next legislative session. It is proposed to bring to an end the long-standing discussion of how to provide better supervision for the rural schools of the State by securing legislation that will furnish adequate supervision for rural schools. To do this it will be necessary to secure the abolition of the existing school system and substitute for it a plan for the selection and support of professionally trained school superintendents. It is highly creditable to the school commissioners of the State that they are giving cordial support to these proposals. At their meeting held at Syracuse on November 6 last they listened to a most thoro and conclusive presentation of the whole subject by Commissioner Draper, and adopted resolutions by unanimous vote inviting the Commissioner to prepare a bill for the consideration of the legislature which would give expression to his views and agreeing to support the bill when introduced.

It is not unreasonable to hope, therefore, that the legislative session now about to open will see a transformation of the rural system of the State of New York and the provision for it of a carefully thought out supervisory system.

Not only the Department of Education but the people of the whole State may well be heartily congratulated and applauded if this fortunate result is secured.

The Bureau of Education

It is to be hoped that state, county, and city superintendents of schools and teachers generally will write promptly to the Senators and Representatives in Congress from their several states and districts, in support of the recommendations made by the Secretary

of the Interior, in transmitting his estimates of the cost of conducting the Bureau of Education for the next year.

The most important and significant of these recommendations is that of increasing the salary of the Commissioner of Education from \$3500 to \$6000. This well-deserved increase, already much too long deferred, should certainly be voted. It would only put the salary of the Commissioner of Education on a par with that of other government officers of similar rank. Unless this increase is made, it will certainly not be possible for the government to command indefinitely the services of men of the standing and reputation of the present Commissioner, with the result that the office will degenerate into something but little higher than a clerkship.

A new appropriation of \$20,000 for educational investigations is strongly recommended, as is an increase, from \$4000 to \$12,000, in the appropriation for collecting statistics. Additional sums are also recommended for the Library of the Bureau, for rent and appropriate quarters, and for printing and binding.

For many years the bureau has only received niggardly treatment at the hands of Congress, and now that the Secretary of the Interior has made himself responsible for these important recommendations, they should be vigorously supported by teachers and friends of education everywhere.

The National Education Association in 1908 The negotiations in reference to the annual meeting of the National Education Association for 1908 were concluded by the Executive Committee somewhat more rapidly than seemed possible a few weeks ago, and Secretary Shepard has issued formal announcement to the effect that the meeting will be held on June 29 to July 3, at Cleveland, Ohio.

It is clear that the choice of Cleveland as a meeting place represents a large preponderance of opinion on the part of the active members, and it is also clear that the railroad arrangements to be made for Cleveland will be quite as favorable as those that could be made for any other point.

Inasmuch as the last Friday of June falls on the 26th day of the month, and schools thruout the East and Middle West will almost without exception close on or before that date, there are marked advantages and conveniences in fixing the date of meeting for the week following instead of postponing it until the week after the Fourth of July.

There is every reason to expect a large, successful, and inspiring meeting of the Association at Cleveland in 1908.

**The Imperial Re-
script on Educa-
tion in Japan**

“At the early dawn of our new era, His Majesty the Emperor was pleased to proclaim the need of seeking knowledge in all quarters of the globe. In obedience to this proclamation the Government took necessary measures to improve social and political systems and institutions after the most enlightened models. And the work of education received the greatest share of attention. In the fifth year of Meiji (1872), a comprehensive law relating to the system of education was issued, which had chiefly in view the introduction and cultivation of modern sciences. The educational institutions of the European nations had been carefully investigated and the curricula of our elementary, middle, and normal schools were formed so as to benefit by the valuable additions of those studies which have helped these nations to build up their civilization. Our education has had no connection with religion since olden times, and the new system is also entirely free from any sacerdotal influence. Secular morality has always been taught in the schools and forms the distinctive feature of our system.

As a result of foreign intercourse a phenomenal progress of new theories, ideas, manners, and customs ensued. The radical advocates of the new régime were for giving up everything native and for blindly following all things foreign, while their opponents obstinately clung to the old systems and turned a deaf ear to all suggestion of improvements. As regards the moral system of the nation, some would have it based on the principles of pure ethics, while others insisted on having Confucianism Buddhism, or Christianity for its standard. Con-

flitting doctrines and wild views filled the atmosphere, and the people at large were at a loss which to follow. In such circumstances the morality taught in the schools had no fixed basis. The Educational Department at one time attempted to base it on the wise sayings and deeds of the ancients, but soon found them inadequate. Thoughtful men regretted this state of things and tried in vain to find a remedy. It was in this state of uncertainty that the following historical event took place at the Court:

On the thirtieth of October, in the twenty-third year of Meiji (1890), His Majesty the Emperor summoned Count (now Marquis) Aritomo Yamagata, the then Prime Minister and Mr. (now Viscount) Akimasa Yoshikawa, the then Minister of Education, and graciously delivered to them the Rescript on Education. The next day the Minister of Education caused a copy of it to be sent to every school in the empire with instructions to those who were engaged in the work of education to bear constantly in mind the spirit of this Rescript in the discharge of their responsible duties. On ceremonial and other suitable occasions, they were instructed to read and expound it before the assembled pupils.

Thus the people at last received a guidance which became a light for them to follow amid the chaos of theories and opinions, and all the schools in the empire found in it a uniform basis of moral teaching.

Although several English versions of the Rescript exist, they have been found deficient for conveying the exact sense of the original, of which a complete literal version into any other language is indeed a matter of great difficulty. Towards the end of last year, the Educational Department seeing the possibility of improving the translation convoked a number of scholars to discuss the matter. The accompanying version is the result. The scholars thus assembled considered their work by no means perfect, as the difficulty of rendering into a foreign language all the shades of meaning found in the text is almost insurmountable; yet we feel confident that it is a great improvement on all previous versions. We [the Ministry of Education] now distribute copies for the benefit of those for-

eigners who may wish to know the principle of our moral education."

THE DEPARTMENT OF EDUCATION, JAPAN,
June, 40th year of Meiji (1907).

Know ye, Our subjects:

Our Imperial Ancestors have founded Our Empire on a basis broad and everlasting and have deeply and firmly implanted virtue; Our subjects ever united in loyalty and filial piety have from generation to generation illustrated the beauty thereof. This is the glory of the fundamental character of Our Empire, and herein also lies the source of Our education. Ye, Our subjects, be filial to your parents, affectionate to your brothers and sisters; as husbands and wives be harmonious, as friends true; bear yourselves in modesty and moderation; extend your benevolence to all; pursue learning and cultivate arts, and thereby develop intellectual faculties and perfect moral powers; furthermore advance public good and promote common interests; always respect the Constitution and observe the laws; should emergency arise, offer yourselves courageously to the State; and thus guard and maintain the prosperity of Our Imperial Throne coeval with heaven and earth. So shall ye not only be Our good and faithful subjects, but render illustrious the best traditions of your forefathers.

The Way here set forth is indeed the teaching bequeathed by Our Imperial Ancestors, to be observed alike by Their Descendants and the subjects, infallible for all ages and true in all places. It is Our wish to lay it to heart in all reverence, in common with you, Our subjects, that we may all thus attain to the same virtue.

The 30th day of the 10th month of the 23rd year of Meiji.
(Imperial Sign Manual. Imperial Seal.)

The preliminary program for the meeting of the Department of Superintendence of the National Education Association, to be held at Washington, D. C., February 25-27 next, has been issued. The subjects which President Cooper has selected for discussion are all concrete and practical. They include, the saving of time and energy in public school work, the place of industries in public education, the nurture and protection of the physical well-being of public school pupils, the school as an instrument of character building. There will also be a series of Round Table discussions of subjects of peculiar interest to superintendents, supervisors, and principals.

EDUCATIONAL REVIEW

FEBRUARY, 1908

I

INDUSTRIAL EDUCATION FROM A PUBLIC-SCHOOL MAN'S POINT OF VIEW ¹

It is one of the easiest things in the world for an editor or a minister or any one who writes or speaks to find a first-class flaw in public education. Dr. Hale finds that morality is imperfectly taught, Dr. Eliot, that intelligence has not been brought to effectiveness, Henry Clews, that the so-called educated man is unfitted for business, and Thomas A. Edison, that the typical product of our educational system is useless for applied science. Rabbi Hirsch told the Catholic Women's National League that the greatest failure of our time has been the failure of education. "The eighteenth century closed," he said, "with a belief in the efficacy of learning: the best minds of the day dreamed of universal schooling, calling it the panacea for all social ills. We have largely realized their dream of universal education, but we have found that it has not made good the promises of the philosophers of the eighteenth century. Education has not decreased the numbers of the criminal class; it has made them more dangerous." We still have with us the gambling habit, the drink habit, the reading of ephemeral and degrading literature, the appeal to force, as in strikes and mob violence, foolish runs on banks, panics in theaters, unhappy marriages, divorces, patent medicines, fantastic medico-religious organizations, breakfast foods, electric belts, Alexander Dowies, trusts, and corsets.

¹ Paper read before the Twentieth Century Club, Detroit, Mich., November 9, 1907.

Public education has not brought the millennium. This is what the newspapers charge against us.

Some educators decline to pose as exclusive agents for the establishment of the millennium at all, and disavow any responsibility whatsoever for the claims put forward in behalf of public education by the philosophers of the eighteenth century and by the enthusiastic fathers of our American educational system.

"My business," I heard a superintendent of schools of a New York town say at Albany last week, "is to see that children are taught to read, to write, and to cipher; to know a few facts of geography, history, and science, and that is all. These are the only things that the school has assumed of the duties of the home, the church, and society. By his success or failure in this, and only in this, is a schoolmaster or a city school system judged." Now this superintendent's declaration seems to me nearer to the existent working principle of American public education than any of the more ideal definitions of education which are familiar.

Superintendent Louis Soldan's definition is broader. "The function of a school is to develop power thru instruction in the conventional studies,"² but notice that, according to Mr. Soldan, the function of the school is not to develop power in whatever direction or way one pleases but "to develop power thru instruction in the conventional studies."

Our own Michigan leader, the late Professor William H. Payne, used to summarize the function of the public school system to be: "to graduate a person with a mind richly furnished with knowledge, who is conscious of the beautiful, who thinks clearly, who wills stoutly, and who acts righteously."

Professor John Dewey takes up the wide Comenius doctrine that the school must not be a mere preparation for life but like life itself. Dewey holds that the selection of all the kinds of activities of life that are exemplary, and the practise of them in school as well as they may be practised in the time allowed for schooling, is the proper conception of education.

² *American education*, December, 1901, p. 203.

William De Witt Hyde would have education an ideal life here and preparation for the life to come.

I have at home over three hundred different statements of educators as to what the functions of the public schools are or ought to be. These definitions run the gamut from Bain's simple dictum, "Education is the process carried on by the schoolmaster," to Thorndike's comprehensive definition: "Education is: to change you from what you are to what you ought to be."

WHAT IS THE MATTER WITH OUR "GUIDING PRINCIPLE"?

It is curious to note how generally any or all these aims of education except the first one: "to teach reading, writing, etc.," are in evidence only when a so-called educator makes a speech or writes a paper. The real educators, those who come into the lives of the children every day, are not bothering much about what education is or ought to be. What is the use? We have developed a systematized education that relieves a teacher from all except the most rudimentary thinking. There is nothing more bothersome in a system than a thinking person. No public schools make the nature and needs of children the basal idea. When a visiting school man comes to see an educational institution you show him the building, the apparatus, the library. A friend of mine was elected superintendent of one of the largest cities in Michigan. The board gave him two weeks to visit schools. I introduced him to the superintendent of the Chicago system; the only thing the visitor asked for was a sample set of all the blanks used in running the schools. It is very rare indeed that a visitor can find out from a superintendent in what one of his schools manliness or womanliness or any human quality is being best trained; but some superintendents can tell you what schools make the best showing in arithmetic or spelling or grammar. The course of study is the central idea of a school or a school system and this course of study was not adopted primarily as a set of exercises by the aid of which children may be strengthened in desirable qualities. A course of study is built up from other courses of study which in turn are founded on

other courses farther back. Traditional subjects like grammar, and algebra, and Latin, and geometry persist in them not because those subjects have ever been proved to be the best means of developing power but because they are in the older courses and the course is the main thing. The more perfectly systematized education becomes, the more impossible it is to inject into it the spirit of the modern life which the recipient of the teaching is to take part in as soon as the school is thru with him. This conservative aspect of the management of schools is so marked in contrast with the changes in business, in science, and other departments of life, as to make easy the criticisms of systematic education by scientists like Spencer and Huxley and by men of affairs like Mr. Clews, Mr. Vanderlip, Mr. Edison, Rabbi Hirsch, Mr. Bok, and hundreds of enterprising young editors thruout the country.

SOME RESULTS OF EDUCATIONAL DISCONTENT IN OUR TIME

The majority of us will recall the waves of agitation for particular changes that have beaten against the educational system in our own day.

Do you remember the calisthenic propaganda of Dio Lewis with his bean bags to toss and his wands and grace hoops in the school? Then came the music people, who got into the system but have never, except in here and there a school, become an organic part of the school's service to the scholar.

The commercial agitators made some headway thirty years ago. In 1884 bookkeeping was a required study for boys and girls in the first year of the high school. There is a widespread assumption all over the country that clerks and bookkeepers, so-called business men, have a valid claim on the arithmetic, writing, geography, and English composition of the common schools to the exclusion of other considerations. The science and nature wave next came in. It persists now everywhere. Horace Scudder and a number of strong people established the claims of good literature as a means of culture in the schools, but the course-of-study makers have so systematized this into grammar, analysis, and criticism that we

are ready for another tidal wave of literary people to wash away the wreckage. Later we had the art movement and the era of school decoration. Then we had the civics flood with self-government projects and school cities. Manual training then spattered over from Russia and Sweden. Runkle and Woodward and others pumped it up to a respectable tide. Practically every modern American school system has now manual training. Now we have the industrial-education stream trickling in. This is the subject on which your committee invited me to speak this afternoon.

Industrial education, with us, is reaching the importance of a movement in much the same way as earlier educational influences gained strength. Like them it is taking suggestion from abroad, it is finding lodgment in schools out of the public system, it has a national society for discussion and agitation, it has one important state commission. It asks to become a feature of the public school maintained by taxation.

The defenders of the new propaganda are ready to prove, from every one of the three hundred definitions of education, that industrial instruction belongs in the public schools. To my friend, the up-state superintendent with his three R's, they will show that he can teach his reading, writing, history, and geography, better, in the same length of time, because of the greater mental acuteness and refreshment secured by interspersing industrial exercises between the lessons in the old subjects. To Superintendent Soldan they will say, "We can get you more power thru your conventional school studies because of the mental awakening induced by ours." To Professor Payne's definition they give approval and add, "Our subjects richly furnish the mind with knowledge, awaken a consciousness of beauty, make clear thinking and stout willing a necessity, and furnish constant opportunity for righteous action." John Dewey's Comenian watchword, "Education is life," exactly suits the industrial educationalist, who points out that American life always was and always must be preponderatingly industrial.

Accepting William De Witt Hyde's noble proposition that education must also prepare for the life to come, they joyfully

point to the fact that the great religious Teacher was Himself educated at a carpenter's bench.

ARGUMENTS OF THE INDUSTRIALISTS

To go into detail, these are the arguments that the defenders of industrial education put forth:

The original and instinctive condition of man is industrial. In our own primitive American life, children were surrounded at home with the most interesting and educative industrial processes: gardening, carpentry, spinning, weaving, garment-making, the rearing of animals, harvesting, threshing, milling, soap making, dairy processes, canning and preserving, a hundred operations developing observation, reasoning, judgment, and mechanical skill. Young women did a variety of housework. Young men learned the multitudinous crafts connected with a farm or became apprentices to a trade involving a diversity of educative processes. Schools furnished a supplementary addition to this practical application. Their sessions were short: their range was simple. The apprentice by the terms of his indenture was entitled to attend.

Then came the age of steam, and the growth of the factory system. Machinery cut the trades up into specialties and called for one man for one process over and over. Machinery took the varied work away from the home and the farm and reduced the number of workers necessary to care for the land. It concentrated business in centers and drew the people from the country and small towns to the ever-growing cities. It left less and less work to do at home.

Meantime the schools claimed this unused time. Longer and longer grew the school terms; higher and higher, the age of the children. Compulsory attendance laws were enacted. Every loss sustained by the home was claimed by the school, but instead of supplying that diversity of industrial experience which the young folks were losing, the school continued to develop upon its bookish side until it almost completely separated the children from the original instinctive interests of life. In place of supplementing and varying a child's existence, the school by enlarging a supplementary service into

a principal consideration, has brought us to the spectacle of systematic education ignoring the instincts, tastes, and desires of its material, judging of its needs by its own historically narrow standards, possessed of great influence by the persistence of a tradition once adequate, endowed with tremendous strength by the perfection of a legalized system, but developing the race on a plan appallingly warped and one-sided.

The public school is demanding more and more of the children's time for its, as yet, unjustified purposes; little children are loaded with books beyond not only their mental but their physical strength. The parent who would play with his children must yield to the inexorable demands of school work at home. The schoolmaster growls at music lessons, whines at dancing school, bemoans the children's party, and claims the whole child for what?—for the things that my frank up-the-state friend says are the only things our public schools sincerely care for: reading, writing, ciphering, a few facts of geography, history, and science, and that is all. Personally I had very much rather not have my own children develop into the type proposed by the schoolmaster. I have the feeling that in the children themselves are suggestions more worth following than the artificial, one-sided, and isolated bookish ideals that educational systems have set at the center of their plan. In this, if I read the papers correctly, I am not unique. The prevailing note of comment on public education is that it has not made good. The existing public schools are inadequate devices to meet the needs of the children. As the Massachusetts Commission says (Senate document, 1906, No. 349, page 5): "There is a vague feeling of dissatisfaction with the results of the existing public school system. The schools are too exclusively bookish in their spirit, scope, and methods."

YOUNG MEN DO NOT CARE FOR HIGH SCHOOLS

One of the distressing manifestations of the inadequacy of the school is its failure to retain the children in it. We school people have cherished a notion that the people out of school are chiefly those who want to come and can not. An academic fallacy still persists that the greatest school punish-

ment is expulsion. We have tried to fool ourselves into believing that the compulsory education law is only for the very few children who have not had an opportunity to know how valuable schooling is. It does not take much investigation to topple over these complacent errors. The attendance laws are requiring more and more executive agents and are costing more and more money to enforce.

The people are inquiring, why not pay more attention to making school attract children better and so remove the necessity of working harder to drive them to school? Our Michigan school system proposes free instruction from kindergarten through the university and professional school, carrying the student up to twenty-five or twenty-six years of age; but only a pitiable fraction of the youth over twelve years of age get any of this education at all. The system is planned so that it attracts only a handful. The vast majority of youth over twelve years of age enter into our public educational plans in no wise whatever. Here lies a fatal absurdity in our procedure. We go on taxing all men for service they do not want for alleged benefits their children do not receive.

One of the most pertinent inquiries of the day is concerned with these children not in school. I know of no more comprehensive and suggestive study of the situation than that made by Dr. Susan M. Kingsbury of Massachusetts. Dr. Kingsbury confines her report entirely to children between fourteen and sixteen years, and finds 25,000 of them out of school in Massachusetts alone. The Commission on Industrial Education in that state find that sixteen years is the lowest age at which workers are desired by the employers. This circumstance, and the fact that the Massachusetts law releases children at fourteen from compulsory school attendance, make the two years from fourteen to sixteen especially important. Twenty-five thousand boys and girls of this age are out of school, either idle or engaged in uneducative work, like running an elevator or feeding raw material into a machine. Year after year these youngsters repeat this unskilled task without growth of intelligence or increase of wages. When they reach man's estate they are doomed forever to juvenile em-

ployment and juvenile pay. Whatever broadening influence the elementary schools give is narrow enough; but for these children, leaving school before their minds reach the reasoning and deliberative stage, the influence aimed at by instruction is destroyed. Instead of developing into progressive, ambitious, patriotic, loyal men, these youths grow up without aspirations, without intelligence, swelling the ranks of the discontented, an ever-growing menace to our government, our social aspirations, and our ideals for American progress.

WORKINGMEN DETERIORATING

The kind of work these children do is totally unfitted to educate manhood or womanhood. It is routine work of the most deadening kind. As soon as a lad learns to operate one machine involving a part of a process of manufacture, he is wanted more for that machine than for anything else. To learn a new machine means the spoiling of considerable raw material, or it means a slower rate of work, the waste of steam power, and the possible derangement of the machine itself. The factory workman does not learn the principles of the trade at all. Only by going from shop to shop or from town to town, watching the precarious chances of getting on a new machine, can a young man get a wider view. A generation ago our young mechanics were marvels of ingenuity and intelligence. In our civil war almost any northern regiment could build bridges out of the most unpromising materials in the most impossible places. They could put wrecked locomotives together, rebuild and operate railroads. These men devised the marvelous machinery which now, by a tragic reciprocity, is turning man, its creator, into a stupid, humdrum creature, void of understanding. In spite of our wonderful productiveness we find ourselves today without enough Americans to repair our own machinery or to serve as foremen in our own shops. We find our men growing up in increasing numbers mere automatons, incapable of exercising any initiative whatever.³ This is the condition of affairs that makes

³ Frederick Fish, President American Telephone and Telegraph Co., Boston. Cooper Union, November 16, 1906, 607-77-26.

your public men and women cry aloud for help, that self-reliance, self-respect, intelligence, steadiness, industry, frugality, ambition, and progress may not be stifled in so many of the men and women of our land. While it is interesting to know from the manufacturers that foreign countries, with their industrial schools, are already driving us out of the markets of the world, while it is worthy of note that employers declare that there is a dearth of men able to carry the small responsibilities of our industries as well as none to assume the large responsibilities, while it surprises us to hear the captains of industry assert that they can not draw leaders from the ranks of the workmen because the average of intelligence is so low, the astounding discovery is that more and more persistent are coming the charges that our civilization is declining, our government sinking into chicanery and fraud, our lives and property losing security thru the increase in crime, and our boys, disappointed at the lack of expected opportunity, are growing up as anarchists and enemies of the social order, because life no longer educates, work no longer satisfies the appetite for knowledge. It is indeed an alarming situation that moves a man who has devoted his life to public education, the head of an institution training teachers for the public schools, to say: "Anarchy and immorality are the direct results of our inadequate public school system. The attitude of our public schools is to lead a boy to believe that he can be president of the United States, that he can become the head of a great corporation, that he can achieve greatness in professional life—can do anything except earn a day's wages by a decent day's work. The typical American boy and girl look forward to occupying some high position in which they can wear handsome clothes. It has been said that no agency in the country turns more girls into the streets than our public schools. These young women have no decent way to earn their own living. The boys whom we fail to attract to our schools are the ones who make the anarchists, and it is not strange, considering the bringing up they have had."⁴

⁴ Dr. James Earl Russell, Dean of Teachers College, Columbia University, New York. Address at Manhattan Trade School, January 17, 1907.

That is Dean Russell's arraignment of the public schools for their failure to provide the kind of instruction the wage-earner needs. When you come to study the census of Michigan and discover how many of your citizens are wage-earners in industrial pursuits, when your club shall come to make an investigation like Dr. Kingsbury's, discovering how many children in Detroit are out of school, you will be in a better position to judge whether a public school system devised and maintained by persons who know chiefly the callings in life that represent the minority, is an adequate system for wide public service.

ARE PUBLIC SCHOOLS BASED ON ANTIQUATED NOTIONS?

The proponents of industrial education maintain that our industries are the real basis of our social organization. Our schools are built upon a false foundation: the traditional learning of monks and ecclesiastics with their Latin, geometry, and logic. The ministry, the law, or medicine, have too long been the ideals held up to high school students. The medieval university has too long set its theoretical aim in the clouds and built in the air the steps up to it, which under the name of high schools the public has been taxed to support. When education cut loose from ecclesiastical control and came to derive its support from the state, the bonds of class service should have been broken and a system not established from above, but built on the right instincts and chief needs of all the people, should have been substituted. The citizens were too busy to see to this. It was left to the schoolmaster, himself a product of the old régime. From year to year he would perfect his system against changes from within and suggestions from without.

Now comes the criticism that the children do not belong to the schoolmaster but that the schools are the people's. The vast majority of the people are engaged in industry; the factories owned by private individuals no longer train intelligence, the schools do not train in industry, the result is that the mass of our citizens, working stupidly, are millions sitting in darkness.

Accordingly the men and women with whom I am associated suggest that the institution founded for children and youth, maintained by the people, should serve the people in connection with labor, which is so great a circumstance in the life of the people. We claim that such service can not impair one jot or tittle the advancement of learning, or art, or morals, of civic loyalty, or any worthy thing which any one can claim the schools are for. On the contrary, whatever raises the intelligence of those in our industries, raises us all and makes learning, art, morals, and patriotism more possible. Upon our earning capacity as individuals depends our ability to encourage art, to gain leisure, to study, to cultivate religion, and to practise civic duties.

The advocates of industrial education propose no revolutionary upset. The state has so long maintained higher schools of agriculture, mining, pharmacy, architecture, and veterinary science; the demands for commercial training have been recognized in so many American high schools, the experiments in industrial training of youth have been so extensively carried on by foreign governments, that our proposition is merely for the logical extension of the principle into these grades where it is now grievously needed.

DEFINITE PROPOSALS

Having presented some of the arguments for the introduction of industrial training into public education, may I outline some of the definite propositions already made by those who favor this improvement?

So far, no man or woman interested enough to join the National Society for the Promotion of Industrial Education has intimated that he has the whole thing settled. On the contrary, every address and paper expresses the necessity of careful investigation, study, and experiment.

One suggestion is that clubs, or chambers of commerce, or any organization prepare a report on the occupations of the people in the city. What do men do for a living here? What do women do? How many molders are there? What are their wages? How many stenographers? How many sales-

women? What do they get a week? This report becomes a summary of the opportunities in the city concerned.

Another committee should make a study of the schools which prepare workers for the occupations. How many are there? How many students do they teach? How many of their students get positions? What do they earn the first year, the second year, etc.?

This report will serve as a guide as to what occupations are the most neglected in the way of preparatory instruction; and as to what positions ought to have preparatory study planned for them.

Another committee should take in hand the proper legislative action to get a census taken by the city itself so as to determine how many children under twenty (say) or sixteen (if the weight of opinion favors that age) are out of school. Find out what they are doing, how much they are earning a week, and how many years of academic training they had in a public, parochial, or private school, and in what city they had it. Find how long they attended night school, and whether the studies in it were literary, scientific, or industrial. This study of the children now out of the school, with the summaries made of it, would be considered by almost any other government than our own an essential guide for any kind of action to be taken; in fact an indispensable piece of information for the intelligent management of any school system.

With some definite collection of facts pertaining to this locality in your hands, you are in a position to be listened to by those who have the power or the means to try the experiments needed. Every city must have its share of Carnegies, Pratts, Tomes, Hirschs, and McCormicks, who want to make gifts to advantage their fellow-men. But you must remember that the poor millionaire has so many hair-brained and half-conceived projects brought before him that an educational proposition based on thoro investigation and on definite plans would be such a novelty that it is sure to demand attention.

Studying such inquiries and reports, the Massachusetts Commission on Industrial Education proposes that parallel to

the ordinary high school course an industrial course of four years ought to be offered. Every speaker urges against beginning the specialization for a particular trade too early. The first two years of this course ought to give much and varied work with tools, but it ought to be made more similar to actual American shopwork than the Russian or Swedish manual training is. Mathematics applied to the things people do on earth, science, history, especially of industries, and particularly those of Michigan, citizenship as concretely as possible, drawing of various kinds, music and literature, should all have a place, for you are to train men and not machines. During these first two years of teaching there should be the fullest discussion of the trades, of the locality, the nature of their processes, the opportunity of advancement in them, their minimum and maximum wages. For years the high school has failed to realize what a fascinating and illuminating subject the study of occupations is to boys, how closely connected with racial instincts, how susceptible of illustration by pictures, models, blackboard drawings, and lantern slides, how exercise of all the faculties that high schools claim to develop.

When the student has finished these two years, says the Massachusetts Commission, he should enter upon the course belonging to a special trade. During the preceding two years the vocational purpose has been developed, the individual capacity should have been explored so that with the help of teachers a suitable trade may be chosen. The next two years should give specialized instruction in the trades suitable to the locality, the theoretical foundation of them, drawing, mathematics, history, music, and literature as before. The last two years should be completed by all. Many more boys will remain for them than now continue in high school, but those boys that go to work before completing the entire four years' course should get the full content of it by attendance for two hours every afternoon until they have taken it all, even tho the regular last two years are thus extended to four. Employers should by law be required to send all the boys, for these two hours, until the entire course is covered.

This session should not be at night. Germany has found out that it does not pay to work boys all day and to send them to school in the evening.

INDUSTRIAL TRAINING BELONGS IN THE PUBLIC SCHOOLS

There has been much discussion as to whether these schools should be separate institutions or whether the industrial courses should be given alongside of the academic course in the old-line high schools. Here we are confronted with a curious but by no means negligible fact. The old, aristocratic tradition has not only a firm hold upon the academic high school, but in many cases its students and teachers are glad of it. When I was a student at Ann Arbor twenty-five years ago, we were all very keen in our contempt for the hayseeds at Lansing in the State Agricultural College. A Princeton student visited the house where I lived and despised us because we had a dental college in our university. Last winter Bowdoin and Bates, classical course colleges, fought the State College at Orono, Maine, because it was originally an agricultural and industrial concern, and seemed to be putting on airs. But now Michigan University is proud of the shops and Orono won easily the right to carry Greek along with butter-making. Why not?

The high schools ape the universities. Nowhere is the snobbery of the purely academic more persistent. They have their exclusive fraternities, their initiations, and their hazing. A graduate of a high school who becomes a farmer is looked upon by his classmates as a failure. Our New York technical high school for girls, the Washington Irving, is called in derision by the teachers and scholars of the old-line high schools in New York "the Washing and Ironing High School." Citizens who advocate theoretically the establishment of manual-training schools do not send their children to them. It was the cause of surprized comment that the Pratt Institute Trustees in Brooklyn put their younger brother thru their own manual training high school. If you start your industrial school apart from your established institutions you ostracize

cize it, you make it like a school for colored children. Industrial training has become associated in the people's minds with prisons, reformatory institutions, and schools for the feeble-minded. A foolish prejudice exists and is strong enough to delay unduly the service such education should render to the children of the people. When the Girls' Technical High School was organized in New York, teachers who were transferred to it from a purely academic high school were distressed.

It was only by daily association with teachers and students doing the industrial work that the prejudices were removed. We are now carrying on both the old academic course and the technical courses side by side. There are no warmer advocates of industrial training than some of these academic teachers who were at first unfriendly. The effect on both classes of students is most salutary. The academic girls and the technical girls come together in all common subjects, they have their social, dramatic, and literary clubs in common. From the same family will be one daughter in the academic course and one in the dressmakers' class. Many of the girls who would give up high school advantages altogether, on losing interest as students do in an academic school, cross over into the technical course and continue their schooling. Some of the authorities in our New York school system advocated the withdrawal of our academic students to a separate building and their organization into a new scholastic high school.

The members of the committee to whom it was referred sought varied advice on the proposition. President Eliot's opinion was:

"It is a good thing to give pupils, the main part of whose time is devoted to technical work, some acquaintance with literature and history. On the other hand, it is an equally good thing to give pupils, the main part of whose time is devoted to language, literature, and history, some acquaintance with instructive manual work. The mixture of technical and academic work will give a better result than either alone. At Harvard University we have succeeded in mixing up pretty thoroly the college students and the scientific students thru

a process of assimilating their preparation, studies, and discipline."

President Schurman of Cornell University thought it wiser to keep both kinds of courses in one institution.

Hon. Andrew D. White wrote the committee: "Time has only strengthened my belief that it is an admirable thing to give the students in technical branches the incidental advantages which come to them from connection with a department of liberal arts."

President Wilson of Princeton wrote: "The retention of two kinds of students in the Washington Irving High School seems to me to be done in a spirit and with an intelligence which promises the very best things for future school development."

President Hadley of Yale demonstrates the value of an educational course, not solely, or even primarily, for its studies, but rather for the associations possible for its students, and pleads for the gain to society resulting from the contact of different types of students with one another. He expresses the hope that this gain will be strong enough to resist the tendency to segregation, and valuable enough to compensate for any difficulties which the prosecution of such a plan involves.

President Angell of the University of Michigan said: "I am so strongly inclined to the doctrine of keeping the students of technical branches in the same institution with other students that I should not favor the division of your school into two distinct organizations. So far as they can, it seems to me it is better for your technical girls to be associated with the academic girls in the classes they can pursue in common. They will thus catch something of the spirit of scholarly education and have a more complete development."

The opinion of Mr. Howard J. Rogers, Deputy Commissioner of Education, New York State, was: "Educational progress seems to show the two kinds of education receding from two extreme positions and approaching a more common ground. General courses have been made more practical; practical courses have been broadened by the introduction of cultural subjects."

Dr. Thomas Balliet, Dean of the School of Pedagogy of New York University, called attention to the fact that in New York City practically all the girls who take the academic course intend to become teachers. He pointed out that bringing these girls into contact with girls in industrial classes was a natural way to create an interest of teachers in what seems likely to be a growing influence in elementary school instruction. He showed that the kind of work done in elementary schools even now is such that a future teacher is sure to be benefited by knowing much of what is being done in the designing, dressmaking, and housekeeping classes of the industrial courses.

The lay members of the educational department shared the views of Mr. E. L. Winthrop, jr., the president, who said: "I shall strenuously oppose a separation of the two classes of students. Students attending the school should have the opportunity of carrying on not only the usual high school studies, but such studies as sewing, dressmaking, cooking, etc. I shall do whatever I can to prevent a division into two distinct and possibly antagonistic bodies."

The teachers in the school voted that the best interest of the students was against the separation of the two kinds of work into different buildings.

The students themselves and the alumnæ voted that: having studied together, and having enjoyed the friendship and acquaintance of girls taking the different courses, and feeling the mutual advantage derived from such companionship, they would petition the committee to continue to afford to the residents of the city the continuation of the different courses in the same school.

The Washington Irving High School continues to maintain five courses under one roof. Economy of administration, amelioration of academic bigotry, variety of service to any given locality, breadth of opportunity to the greatest number of students, suggest that in our high schools as in our universities and as in our life the industrial and academic should be close together.

In other cities the people already have their high schools

housed, equipped, and manned (or womened, probably). The easiest advance in the industrial direction is to use the departments of English and history, and mathematics, and music, and physical training in those schools for the liberal culture of the industrial students, and to add the classes in shopwork, applied science, and industry on the school grounds. Let your Latin teacher have a shop near enough to look into it and your abstract geometer be brought by daily necessity to apply to practical problems the accumulation of her scholarship.

CIVIC SAFETY DEMANDS THAT THE SCHOOLS TAKE UP INDUSTRIALISM

The Massachusetts Commission recommends the introduction of industrial principles into all the public schools. "The elements of industry, including agriculture and the mechanic and domestic arts," it says, "can give the highest cultural value along with the greatest industrial benefit" (Mass. Senate document, No. 349, page 20, April, 1906). New York City is extending this work in all the elementary schools. Malden, Massachusetts, has just begun it. Three years ago Boston tried it in one grammar school. On May 6 of this year, the Board of Education voted that the school which had tried the experiment of devoting one-fifth of its time to definite industrial instruction had not surrendered an iota of its efficiency in the preparation for admission to the old-line high school. The Board voted to extend this training to other boys' schools. The Board of Superintendents now asks that industrial training be provided in some of the girls' schools. Two-fifths of the entire time will be given to industrial exercises (*New York School journal*, May 18, 1907).

"Why," asks the *School journal*, "are such propositions almost invariably attacked by teachers? The great majority argue simply for the preservation of a comfortable routine, and cry 'Go to, there is no time'" (*School journal*, May 18, 1907).

Then up speaks Mrs. Ella Flagg Young, the head of the Chicago Normal School, who has known teachers and public schools all her life, and says that the grammar schools have

plenty of time. She says the public schools could easily do in nine years what they now take twelve for.

One other reason why we should get this industrial work closely affiliated with the present schools and not isolated in separate buildings is that it must be protected from its own extreme advocates. The very opposition of the old-line schoolmaster has in it a valuable corrective against the sordid materialism of modern industry. Whatever his limitations, the schoolmaster can not be called a mere money-maker. Isolated industrial schools run great risks of the domination of the employer. Industrial wealth has proved itself no special friend of children, or of their education. The greed that lures children to the coal mine and cotton mill by the seductive temptation of early wage-earning would be a sorry influence in schools detached from the old system. The business avarice that first brought Africans as slaves to our shores, and then Chinese, and now Italians, because their labor is cheap, is scarcely a power to be trusted with the direction of any public schools. "I want workmen intellectually able," cries the employer, but the kind of intellect worth most to him, a mind immured in business or in a factory, is, forsooth, as much of a mental and spiritual cripple as the perfect product of our scholastic system, with mind immured in a book. Let us have the workman in the school, teaching us how to build and run machines, but let us have the schoolmaster with his ancient lore repeating, from an antiquity antedating machinery, that man alone interests us, and only he in his superiorities. Let our schoolmaster teach the toiler that human spirit can impregnate the work of the hands, and thereby labor becomes art. Let not the material spirit be exalted nor the esthetic be laid low. To give them both, for both make life, must be the aim of schools.

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II

THE EXCLUSION OF RELIGIOUS INSTRUCTION FROM THE PUBLIC SCHOOLS¹

In the education of the nation's children and youth we are confronted with a dilemma, which, in broad terms, may be stated as follows: Shall we aim at the individual's physical, mental, and moral perfection within the limits of his inherited capacity, or shall we merely undertake to fit him to cast an intelligent ballot and to render remunerative service to the community in which he lives? Symmetry of training and breadth of culture are necessary to the highest development of the individual and the complete satisfaction of his inner and spiritual life; and yet conditions may be such that the perfectly educated man may find no suitable place for himself in the world of industry and commerce. The world, more and more, demands something that may be expressed in terms of industrial service. What shall we do? Shall we give the highest and noblest education possible, irrespective of practical needs, or shall we yield to the insistent demand for efficient laborers and skilful artisans? This is the first and most perplexing problem that must be met whenever we organize a system of public education or attempt even to outline a course of studies for an individual boy. It is likewise a constant problem, defying, as it does, every attempt to work out a solution satisfactory to the schools and the general public.

There has been a widespread and somewhat radical modification of educational ideals within the last half-century. The point of view of the college and school has changed. Humanistic culture, hitherto attained mainly thru the study of the classics and mathematics, has given way to the demands of

¹ Paper read before the Schoolmasters' Association of New York and Vicinity, November 9, 1907, and before the Albany Ministerial Association, November 18, 1907.

science and engineering. The great industrial age upon which we have entered has laid its iron hand upon the schools, and has made education tributary to its own ends. Students in schools of applied science are already outranking in numbers those in the colleges of liberal arts; technical, industrial, and commercial schools are maintained at public expense, and training for vocations is now more likely to receive approval than any effort to achieve "intellectual and moral virtue," which, says Plato, "is the end of life and, therefore, of education." Even if this trend in educational sentiment is not to be deplored, it must be reckoned with, when we attempt to forecast the outcome of a great scheme of public education from which instruction in religion has been excluded. In concentrating our attention upon the need of maintaining an intelligent electorate, and upon developing industrial and commercial efficiency, we are seemingly in danger of forgetting that "before man made us citizens, great Nature made us men." We are either ignoring the belief of our fathers that religious training is essential for personal integrity and for national stability, or apparently we have come to believe that in the building of character morality is more fundamental than religion. In determining the adequacy of our limited system of public instruction and in forecasting the probable outcome of the experiment which we are making in this country, the question of the mutual relations between religion and morality is all-important.

The exclusion of religious instruction from all tax-supported schools is a nearly accomplished fact. So long ago as 1892, U. S. Commissioner Harris said: "Religious education has almost entirely ceased in the public schools and it is rapidly disappearing from the program of colleges and preparatory schools." To be sure, in several of the states the formal reading of the Bible, without note or oral comment, is still permitted, and in some localities, where no objection is made, the Lord's prayer is recited at the opening of school. But the ominous fact still remains that the teacher can not safely undertake even to define the elemental principles that constitute the warp and woof of a religious life. The Book of

books that contains the "Decalogue" and the "Sermon on the Mount," the Book whose teachings have been the inspiration of our civilization and whose doctrine of the brotherhood of man has found embodiment in so many beneficent institutions of modern times, is as rigidly excluded from the serious study of the classroom as if it were the bane and not the blessing of the race.

It is hardly needful to cite the causes that have operated thus to secularize the public schools. These untoward results, if such they be, have not been wrought by unwilling teachers, recreant school officials, or the irreligious populace. They are rather the outcome of differences between representatives of conflicting religious sects, who, professing in general the same faith, nevertheless emphasize more their differences than the points on which they are agreed. That a free and highly civilized state should make the teachings of its sacred Book practically inaccessible for purposes of instruction to the children of the public schools, is a sociological phenomenon of rather gloomy significance.

This exclusion of religion from public instruction is not rendered innocuous by saying that it is not the function of the state to teach even the elementary principles of religion to children in the schools. Upon what evidence can the student of history base the affirmation that belief in some religion is not necessary to a nation's welfare and perpetuity? By what process of reasoning may the student of education conclude that religious faith can long survive in the heart of a nation if its doctrines are not early implanted in the minds of the young? Guizot, in his *History of the civilization of Europe*, says: "In order to make popular education truly good and socially useful, it must be fundamentally religious. It is necessary that national education should be given and received in the midst of a religious atmosphere, and that religious impressions and religious observances should penetrate into all its parts. Religion is not a study or an exercise to be restricted to a certain place or a certain hour; it is a faith and a law which ought to be felt everywhere and which, after this manner alone, can exercise all its beneficial influences upon our

mind and life." Shall a nation, because it is free, be debarred from taking necessary measures to insure its own stability and permanence? Because there can be no formal union between Church and state and because bigotry abounds in the churches, shall the state schools abstain from teaching that which is of fundamental importance to the life of the individual and the maintenance of social order and national integrity? Is it true that the teachers of the schools can not be trusted to teach the cardinal principles of religion without sectarian prejudice and without exciting theological controversy?

It is no sufficient explanation of this severance of religion from education to say that parents are responsible for the religious education of their children. The number of irreligious and unreligious homes in this broad land is as countless as the trees of the forest. How many mothers, like Cornelia, have the time or the inclination or the necessary fitness to give those profoundly impressive and lasting lessons in the verities of life that have been the making of so many good and great men? The exacting demands of modern life, especially among the poor, more and more make it necessary to delegate the child's tutelage to the school or church. By so much the more, then, should the efficiency of these two agencies be increased.

It is no adequate answer to those who question the wisdom of our present policy to say that the church and the Sunday school are organized and maintained for the sole purpose of giving religious education to the people and their children. The appalling fact is that those classes of our population which most need religious instruction and training do not attend church and do not come within the influences of church organizations. According to the estimate of the Bureau of Education, the whole number of persons in the United States from 5 to 18 years of age in 1905 was 23,410,800. The number of scholars in the Sunday schools of the same year is reported to have been less than one-half of this total, or to be exact, 11,329,253. How many of these were adults or more than 18 years of age does not appear in the report. Do we need any further evidence to demonstrate the otherwise evident

truth that the church does not furnish adequate religious instruction to the nation's children?

I can not escape the conviction that the Protestant church gives too little time and insufficient attention to the religious training of the children that come within its own field. Attendance upon the Sabbath service and the Sunday school is not enough. It lacks fulness and proportion and encourages the notion that piety is a Sunday dress and not a daily life. The early impressions and daily habits of childhood are most effective in determining character, therefore in the early years, at least, religious and secular training should go hand in hand. The great historic Christian church stands alone in recognition of this fundamental truth and at great financial sacrifice accordingly maintains many separate schools to accomplish this very purpose. It is estimated that no less than 176,000 children are in regular attendance at Catholic schools in the state of New York and, while the private academies formerly maintained by Protestants are rapidly disappearing, Catholic seminaries are as rapidly being established. No less than 102 of such secondary schools have been incorporated by the State Board of Regents, and are now carrying on their academic work in accordance with the established standards of the State Education Department. But the combined efforts of Protestant and Catholic churches fall far short of reaching our entire population and therefore can not exert that full measure of religious influence which is needed to inspire and exalt the nation and to insure its stability.

If we affirm that religious instruction is an essential part of true education and assume that under present conditions the home and church can not or do not compass and accomplish it, why is it that the American people do not seriously protest against the exclusion of religious teaching from the public school, which is the only place where all the children can be taught? We hear an occasional note of alarm from some serious-minded theologian or some far-sighted student of education, but the acquiescence of the public mind is very general. It seems to be taken for granted that the question is closed and that the outcome of this experiment, which dis-

regards the teachings of history and ignores the policy and practise of such European nations as England, Germany, Austria, Hungary, Switzerland, Norway, and Sweden, can not fail to be safe and salutary. After a critical study of this problem, and a somewhat close and extended contact with educators and school officials, I can reach no other conclusion than that the general acquiescence in the exclusion of religious teaching from the schools is the result of a widespread belief that morality—not religion—is essential to a sound education. In this view, morality is more fundamental or, to change the figure and quote from Professor Palmer of Harvard, "Religion is the consummate flower, the finest fruit of morality." Matthew Arnold, in his *Literature and dogma*, says: "If we follow the intention of human thought and human language in the use of the word 'religion,' it is ethics heightened, enkindled, lit up by feeling. The passage from morality to religion is made when to morality is applied emotion." This plausible and pervasive theory is Platonic in its origin. It assumes the truth of idealism and the doctrine of innate ideas. It has been endorsed and amplified by such great minds as Descartes, Berkeley, and Kant. It validates the concept that what we call "conscience" or the "moral sense" is an original, inseparable, and essential constituent of the human mind. This idealistic view of conscience as the true arbiter of conduct has been expounded by Kant and exprest by Professor Royce in the following words: "Conscience, for the first, shows you the moral law, shows it as something overwhelmingly rational, absolute, universal, indifferent to your private wishes, independent of your present happiness, sublime as the heavens are, but as directly known to you as is the very existence of your will and your reason. Conscience shows you this absolute law, and says sternly, unwaveringly, uncompromisingly, 'Do thy duty.' And because conscience shows you this, it demands of you that you labor henceforth and forever as if you were an instrument, a minister of a divine law that moves in all things."

If, giving heed to such high authority, we accept this philosophy of human nature and human conduct, we may not

deplore the decadence of religious instruction in our schools, because in teaching morality we are virtually cultivating the soil and sowing the seed from which religion grows. If the moral faculty is innate in its origin, and not a social instinct developed thru experience, we may confidently appeal to it and rely upon it, when the day of storm and stress comes to the individual or the state. If it can be shown that this philosophy is generally taught by the theologians and credited by the churches, it may in part explain the seeming unconcern of the people when it is demonstrated that a majority of our children are receiving little or no religious instruction. In any event, this is the doctrine of hope and optimism and, if true, is "like the shadow of a great rock in a weary land" of scientific skepticism.

But if, after all, we are unable to accept this *a priori* concept of man's moral nature, and must abandon the theory of idealism, are we not compelled to accept scientific realism with all its implications and consequences? What is the naturalistic system of ethics? John Locke suggested it in his famous aphorism that "whatever is in the mind is first in the sense," Lewes, on the last page of his *History of philosophy*, defines it negatively by saying that we have no "ideas independent of experience." President Butler, in a recent address at Lake Mohonk, said: "Our political systems, our ethical standards, and our moral aspirations, are a development, and are in development today." This is tantamount to saying that the science of ethics is a body of knowledge developed by a process and a method akin to that which has obtained in the acquisition of what we know of the principles of economics and other branches of social science. In this view, morality is economic and founded on the idea of expediency or upon a system of procedure and conduct that, thru the ages, has been found to be salutary and advantageous. As the nations have progressed in civilization, there has gradually emerged from the experiences of men and nations a code of ethical principles which on the whole is thought to be essential to human happiness, or necessary for the general good. These principles are, however, in no sense absolute or sacred. That which is right or good

in human action is changeful, variable, and "subject to authority, occasion, or circumstance." In a word, there is no fixt standard of right or virtue; we merely take the world as we find it. This, stated broadly and briefly, is scientific realism applied to ethics; it is the antithesis of idealism. Herbert Spencer sums it up in a single sentence when he says that "conscience is only an hereditary prejudice in favor of conduct useful to the tribe." "Conscience," says Francis Galton, "is now known to be partly transmitted by inheritance in the way and under the conditions clearly explained by Mr. Darwin, and partly to be an unsuspected result of early education."

As seen by the scientific investigator, man is a complex living machine, controlled from within by three forces. The first is instinct, which, instead of being a God-given endowment, is merely the inherited resultant of ancestral habits. Our moral propensities are therefore as good and noble, or as limited and perverse, as have been the lives of our progenitors. The second is the body of habits which are rapidly and easily formed in childhood but defy material change after the termination of adolescence. The third is volition, which is the culminating act of our mental processes upon which we must rely to counteract depraved instincts and demoralizing habits. In the processes of education we must focus our attention upon instincts and habits, and attempt thru authoritative instruction so to inform the mind and strengthen the will that the moral purpose may dominate the life.

In this connection it is pertinent to inquire whether such authoritative instruction can be found in any other source than that of religion. The naturalistic code of ethics is formulated in accordance with the economic, utilitarian, and ever-changing standards of individual and social expediency. It embodies such elusive, ill-defined, and variable moral concepts as may be evolved by scientific inquiry and inductive reasoning. It is not difficult to believe that, when critical decisions are pending, these fine-spun theories will be thrust aside and that the masses of men will fall back upon some dominating instinct or habit, if their convictions are not firmly grounded upon some system of ethical principles that are clearly de-

finer and authoritative. Mr. Balfour, in his book on *The foundations of belief*, after showing very clearly that the naturalistic theory of the origin of conscience can not command the reverence of men, says: "Practically human beings being what they are, no moral code can be effective which does not inspire in those who obey it emotions of reverence." Because this naturalistic system of ethics may vary with climate and change with latitude, because it may be constrained by the counsel of prudence, because it may be tainted by the greed of the market-place, because it may be measured by the shifting standards of personal and racial heredity, because it is subject to the limitations of knowledge and the capacity for clear thinking, and because it is merely the product of scientific inquiry, it can no more command the reverence and obedience of men than the laws of economics or the principles of finance. If such be the genesis and nature of our moral and esthetic principles, we drift upon a stormy sea unless we find safe anchorage in that system of religious ethics the truth of whose principles survives the fall of nations and outlasts the generations of men.

But even tho we are constrained to accept the postulates of rationalistic morality, the history of religious wars has been so appalling, the tyranny of a state church has been so intolerable, and the memory of sectarian strife is so recent, that it seems idle even to propose to strengthen the bulwarks of our civic and social life by teaching a divinely sanctioned morality in our public schools. Under prevailing conditions of popular sentiment, the counsel of perfection in respect to religious education must therefore be attained, if at all, by extending and multiplying the supplemental activities of the church.

In writing this paper I have endeavored to elaborate briefly *three* propositions: (1) There is a pronounced but inevitable trend in modern education *away from* the study of the humanities that have to do with the inner and spiritual life and *towards* the manual arts and sciences that relate to the outer and material life. (2) We do not need to be alarmed

at the exclusion of religious teaching from the schools if we can be assured of the supremacy of conscience and the fixity of the moral law. (3) But if this postulate is not tenable and if, on the contrary, the validity of the naturalistic code of ethics withstands all questioning, and if we are to maintain our democratic institutions and uphold our standard of civilization, should we not devise some means whereby all, rather than a half, of our children may receive at least elementary instruction in the fundamental principles of religion?

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III

THE STUDY OF ANIMALS IN THE SCHOOLS

In the renewed endeavors of the last twenty years to bring into the child's school life some systematic observation and discussion of the great realm of natural objects and forces, animals have received a large share of attention. The problems that have arisen in presenting this portion of our environment are numerous and difficult. Many teachers have come to regard worthy presentations of animal life as the most exacting of all "lessons." Those who have been the "round" of the elementary sciences, struggle to maintain in the study of animals the grade of work easily secured in lessons taken from the physical realm. Notwithstanding the difficulties in the way of securing animal lessons that ring true, the modern call for a broad, rich curriculum in elementary education will not allow the matter to drop. One would be a bold prophet to even outline the final solution of the problem, but a greater mistake would be made to predict in the future a total ignoring of the demand. Almost nothing, even the inopportune and visionary, has ever found its way into the American school without finally securing recognition and a definite place in the more extensive systems. The aim of our education, to equip for active, productive, joyous living, is so comprehensive and democratic that a wide margin is created about the three R's for such topics as plants, animals, rocks, minerals, physical and chemical processes.

Let us for a moment glance at the difficulties which beset such lessons: (a) the difficulty of finding sufficient time for this work is in no way peculiar to animal lessons. Practically all students of education believe some portion of the school day should go into the observational study and discussion of the outdoor world. Teachers find time for this work when so required, or when they themselves are possessed with a

desire to minister broadly to the children's needs. (b) The securing of proper material, and in quantities large enough for individual study, is a hindrance that at times prevents the giving of a lesson. There is no special way of overcoming the difficulty. If one is prepared to give a lesson on short notice, material is often used that otherwise is neglected. (c) Time and some ingenuity are required to prepare the material, especially if the lesson is given on living animals. Giving lessons on absentee animals is an undesirable practise: nothing but unusual skill can make anything out of such a proceeding but an information exercise. Not only are time and patience required to secure living animals and place them in fairly comfortable surroundings, but considerable labor should be expended in preparing preserved animals for observation and discussion. (d) When a lesson is over, the animals ought to be removed. Almost all teachers at times leave animals to starve and die for want of care. Such a practise can be condemned on a number of grounds. It is quite as necessary to clean up after a lesson as it is to get ready for a lesson. (e) The methods of conducting lessons are subjects of perennial discussion. Undoubtedly one has to discover himself the finer details of his own methods; there are, however, certain fundamental principles that have been arrived at by experienced teachers underlying the teaching of every subject. These principles may be viewed as the appropriate means for securing the kind of reaction for which the subject is given. The methods of history are not appropriate, therefore, for the subject of zoology, and *vice versa*. In general, the animals should be before the class, or if feasible in their hands. The questions should be so framed as to lead to first-hand observation on the part of the pupils. A description of the organs and activities should be the basis of simple discussions. All explanations should rest on observed structures and activities. On the class observing an organ or activity, the better question usually is, "Of what use is it to the animal?" rather than "What was it made for?" Often organs and even activities serve an animal in sundry ways. As we trace the development of an organ thru the animal kingdom, we are forced to rec-

ognize the fact that the organ has changed in strength, relative importance, and oftentimes in function. A moth's wing, for instance, whatever its first function, renders today in the case of some moths the following services: (1) an organ of locomotion; (2) protective covering for the body; (3) color protection against enemies; (4) a sign of recognition to the opposite sex. Many questions as to use or function can only be settled by experiments, and as experimentation affords the most reliable means of ascertaining truth, experiments with animals, even when too simple to be conclusive, should be employed when possible. If, for instance, the question arises, "Does a spider depend on sight in building its web?" the only way of answering the question is thru an experiment. If a confined spider spins its web while in the dark, we are warranted in concluding light unnecessary for the act. In discussing the meaning of an organ in the life of an animal, we rely on three kinds of evidence—structure, habits, and experimentation. Applying these tests again to the question of sight in the spider, we say the bead-like objects on top of its cephalothorax resemble (structure) the simple eyes of an insect; that we observe that spiders run away as we approach close to their webs as tho they saw us (habit); but to be sure they are not warned of our approach thru some other sense, we insert our pencil point into their webs (experiment); if they rush out as if after a fly, but stop before reaching the pencil and rapidly retreat, we then regard it as probable that some degree of sight is possessed by spiders. We should avoid thinking of an animal as tho it were a machine in which all acts are mechanical performances. While most animal responses are called automatic, an animal is not a machine in any discriminative sense of the word, but rather a growing, changing, more or less responsive organism with some variation in all responses and with an occasional unaccountable act. To regard an animal in the same light as one regards a piece of physical apparatus is a misleading comparison and one that confuses physical with biological laws.

(f) More fundamental and vital than any of these problems, is the question of the purpose of animal lessons—that

for which they really exist. Arguments in favor of such lessons are fairly numerous. Some of these pleas are by no means valid; others apply equally well to the teaching of almost any topic. Some, however, must be regarded as having sufficient weight to receive serious attention. In brief outline, I believe the weightier arguments advanced for the study of animal life are as follows:

1. We are surrounded by animals, indeed animals form a large and valuable part of our environment. If we mean to give any force to that portion of our educational discussions which defines education as an acquaintance with our material and spiritual environment, then local animal life can not be entirely ignored. We must find some small place for animal lessons in our course of study.

2. This attention to animals, says a second argument, is by no means a new human interest. The attempt to make the study of animals a part of our formal education is new, but not the interest. Man in the most primitive times sought the acquaintance of certain animals, and labored to acquire knowledge of the animal life of his region. Out of this primitive interest came all our domestic animals. Our dog, cow, horse, hen, etc., were domesticated so early in the history of the race that no records exist of the people or time when these priceless possessions were acquired. The interest has fluctuated but never died. Aristotle (384-322 B.C.) was the first to classify animals. He was able to classify and describe 500 species. No other ancient writer contributed much to the study of animals. At the beginning of the 16th century a new impetus was given to this study owing to the extensive geographical discoveries, so that we find in Linnæus' (1707-78) writings mention of about 6,000 species. The interest has continued so that today we have over a half-million species described and are adding to the list at the rate of nearly 10,000 yearly.

3. But this interest has not only secured for us our domestic animals and consequently food, clothing, and at times shelter, but furnished us with invaluable intellectual possessions. Our knowledge of our own bodies, our diseases, and the laws of

our activities has, to an astonishing degree, been obtained from study of and experiment with lower animals. Physiology and psychology owe large debts to zoology.

4. The animals of any locality may be grouped as "friends and foes." Beyond some slight knowledge of our domestic animals, there commonly exist dense ignorance, misunderstanding, and superstition concerning all animal life. The plain statement is that men, women, and children are so poorly informed on the animal life of the home, yard, field, stream, and shore that they can not distinguish the harmful from the harmless, often destroying the harmless while remaining indifferent to those that bring disease and poverty to them.

5. Largely as a result of this ignorance comes the fact that certain animals are being destroyed so rapidly in certain sections of our country that unless steps are taken to prevent the slaughter these animals will become extinct. Persons awakened to the situation look to the public schools as the one institution capable of correcting the evil. Fifty years ago or less, our bison roamed in herds of 50,000 on our western plains; today not a wild herd is in existence and only a few private herds are being maintained. From one roosting place in the northern part of the United States during the summer of 1878 nearly 4,000,000 dead passenger pigeons were shipped out. Counting those that were carried away alive and the squabs left to die, the destruction in this one wood has been placed at one billion. Today the passenger pigeon is all but extinct. We know valuable animals have been driven from the surface of the earth; quite a long list is so threatened today.

6. Acquaintance with animals affords a worthy form of pleasure. Many a man works well who is utterly unable to turn anywhere and find rest. The man in these days of rush and worry who can abruptly turn from the exacting demands of his life and forget for a little his burdens has an immense advantage over his fellow who is utterly unable to unbend and sees nothing in the world worth while but business and duties. One who knows little or nothing of natural history has been likened by Thomas Huxley to one passing thru a picture

gallery in which most of the pictures have been turned to the wall. This argument maintains that preparation to spend one's leisure is quite as important as preparation to enter upon some useful occupation. In our educational practise we have reached a place where we can no longer neglect either aspect of a child's training. Unfortunately this pleasure-argument is often made part of a more extensive plea in which "love of the beautiful" is the main theme. Not infrequently the language employed is so extravagant that the effect on the sober mind is the reverse of that desired. Such expressions as the following mean very little when one tries to translate them into other words, or employ them as guides: "to become the friend of nature," "to love and commune with nature," "to read her (nature's) innermost secrets," "to understand her varying moods," "to learn to love the purity of nature," "feelings of tenderness and sympathy that vibrate in perfect harmony with nature's symphonies," etc. All such expressions belong to mysticism and cater to a sickly-sentimental type of endeavor that has all but shipwrecked the nature-study movement. Notwithstanding the senseless, extravagant, and highly emotional extensions the pleasure-argument sometimes receives, we must recognize the fact that some acquaintance with the animal life of field and shore does add in a large way to the pleasure of outdoor life and contributes to the saving of many from *ennui*. In this connection we should recall the fears people entertain of harmless animals. One fails to appreciate unless teaching the subject the extent and variety of fear possessed by both children and adults of our local animal life. There is good reason for maintaining that children if left alone soon overcome any fright occasioned by a new animal. Ignorant parents and nurses, however, teach that animals in general bite and sting; later, playmates continue the instruction along the same line. Whatever service fear played in protecting primitive man from possible harm from unknown animals, the service is no longer needed, for the character of the animal life of our country is sufficiently well known to guide us in this matter. It is no small matter to the individual to be relieved of groundless fears. Fear is

a form of suffering which disorganizes and destroys thought and renders efficient action almost impossible.

A teacher can not too clearly possess the idea that every exercise has a purpose; that this purpose grows out of certain educational views or principles, which, if his teaching is to rise above the grade of day labor, he must grasp and strive to actualize in the work of the schoolroom. What is the purpose of lessons on local animals? It must be acknowledged, the question is capable of a variety of answers, as the above arguments indicate. While recognizing the need of avoiding narrowness in stating an educational policy, we should at the same time recognize that the other extreme of vagueness and diffuseness is even more disastrous and far more to be avoided. When it comes to action, the human mind seems to require a simple, definite, and consistent end in view; when this is lacking, our efforts become lost in spasmodic and conflicting spurts. Clearly, a vital need in this field is that for which the human race has striven, in its upward climb, namely, a better acquaintance with the animals of the immediate environs. "What is this animal good for?" Or, what is the economic bearing of this animal? Is it good for something, is it worthless, or is it worse than worthless? How does it affect us in everyday life? Is it adding something to our "goods," or destroying our property and poisoning our lives? Is it our friend or foe, directly or indirectly? In what does its good lie and from what does its harm come? What habits has it that enable it to render this service or work this harm? On what structure of body do these habits rest? In the light of its habits how shall we treat this animal? To what extent has this animal in the past been misunderstood? What is the better attitude to cultivate towards this animal? Questions of this sort serve to fix our minds on a fundamental relationship existing between ourselves and the animal life of our locality. At the same time they indicate a defensible line of study inasmuch as they point to a deficiency all too prevalent in the education of the American child. We have too often been guilty of presenting trivial and even erroneous points of view concerning the animals of different localities. Let

us no longer fail in grasping the true problem: "What is the value of this animal to the community, and on what structures rest those activities which make it what it is to man?" This question, I maintain, should be the rule and guide which shape animal lessons in the public school.

It will be seen on a little reflection that this line of questions recognizes as valid arguments 1, 2, 4, and 5; while arguments 3 and 6 seem to be ignored. This, however, is not true, for a great deal of material is furnished for comparison between human and animal structures and activities, and for simple conceptions of the law of development. Argument 6 is present in all the work as an unavoidable accompaniment. And now a word in closing concerning this very important ethical-esthetical-pleasure-argument, for of all the arguments commonly advanced, the value of the study of animals for the accompanying emotions is exalted above every other thing in a way at times to misdirect our efforts. All knowing and doing are inseparably wrapt up with emotions. (1) There is no such thing as an emotionless mental state, and conversely, no emotional state is possible without some accompanying intellectual and motor activities. (2) No kind of emotions are transferable by one individual to another individual. The ignoring or misunderstanding of these general psychological laws is at the basis of much of the flamboyant nature-study appeal. We are the same as told that an emotion can be produced at will in our pupils by our talking about the emotion. If an emotion ever comes by such a procedure it is of a cheap, imitative sort possessing no enduring, transforming quality. Emotions are personal and individual, not transferable and not easily gotten at. Now there can be no question but that a child's emotional nature is improved and enriched by contact of a certain kind with animal life: the question in point is, how? To this question the apparent answer is, by securing motor responses from the child under the guidance of an idea. That is, we should secure observation of some animal structure, or activity, lead the pupil to offer some interpretation of the structure, or activity, and direct the performance of some act. The tail of a white rat, for instance, is observed and pro-

nounced (interpreted) useless; when the rat is caused (motor activity) to walk a narrow object, the serviceableness of the tail as a balancing organ is appreciated. Or, the teeth on the hinge of a clam shell are observed and interpreted as aiding in holding the shells together; the two shells are fitted together (motor activity) and the perfect adaptation of the device is appreciated. Or, spines on a dead star are observed and pronounced (interpreted) organs of defense. On drawing them (motor activity) they are discovered to be of different shapes and modes of attachment, consequently suited for different services (appreciation). In all cases when the three reactions, observation, interpretation, and motor activity are secured, some degree of appreciation results. To appreciate something is to have your knowledge of the thing accompanied by an emotion. But it is impossible to have the emotion without the knowledge, hence, to belittle knowledge as some nature-study advocates do while exalting some emotion, is to decry the one thing that can produce that for which they labor. Emotions when not checked and corrected by the carefully balanced facts in the situation, become sentimentalism; emotions tho steadied by knowledge, if unaccompanied by appropriate motor activities, fritter the time away in impracticable considerations. In conclusion, therefore, we can not direct emotional states, but we may profitably endeavor to direct the attention processes, *i.e.*, thought and activity, and in so doing lay a real foundation for the desired emotions.

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IV

PSYCHOLOGICAL BASIS OF GRAMMAR

The following paper has two connected aims. First, by an analysis of the chief classes of linguistic experience, some suggestions are reached regarding the psychological and logical bases of language, and especially of grammar, the universal element of formal law which permeates all language in some degree. Second, from such grounds some corollaries are deduced of practical import to education; and in the present connection this summary estimate of the purpose and methods of grammar as a school art must be deemed the gist of the paper, tho the theoretical section occupies the majority of space.

A friend has suggested that the word grammar had better be eliminated from the paper, since I was not thinking of grammar, which is the science of linguistic forms regarded as fixt and fossilized, static and unbending. But I do not feel justified in regarding the content of grammar as the linguistic skeleton or as the dead product of certain psychophysical activities. Grammar is no more analogous to anatomy than to physiology; it is the science of linguistic functions as well as of structure. And if function is rooted in structure, the latter must be regarded, in language, as an aspect of process. While emphasizing this science of the *laws* of language, we should guard against any complete abstraction of the universal from the particular. Grammatical laws must be a system of laws *of* and *in* the process of experience. An immanent universal alone is of any use in this field. Finally, grammar is not only concerned with a decidedly fluent aspect of life, it is itself a process, dynamic and changing; and its *development* in race and individual is an essential phase of its being and its ideal. As a science it is not abstract in origin, nor can it ever without suicide become completely abstracted

from the particular, fleeting circumstances of daily parlance. But now to our analysis.

The discovery, expression, and comprehension of ideas must first be distinguished and the process involved in each analyzed so far as it is related to grammatical experience. At the birth of ideas, the mind may be relatively passive or active: intuition, inspiration, uncontrolled association may predominate, or thought and rational connection. The former must be developed into the latter, however, before the process gains any intimate relation to grammar. In the controlled discovery of ideas from concrete sense perception and reflection, there is a survey of the facts, a selective attention to aspects, an apperception or systematic grouping of details in some relation. Therefore even tho words do not come into consciousness, yet as organized mental systems they have some influence. Verbal imagery, if it occurs, need not be wholly grammatical at this stage. The feeling of relation between the familiar and the novel and the interest in moving from one to the other present a basis for grammatical structure, and further distinctions naturally follow as needed. Both logical and grammatical norms are gradually applied and reduce the chaotic and unanalyzed material to form. These norms are inherent in the mind as modes of dealing with material, established habits developed by social contact. But the grammatical habit, the more immediately social of the two, may function little at this stage in so far as one's *feeling* in silent observation and reflection is not social.

In conversation or the exposition of ideas the social feeling comes into more prominence and the grammatical habit further transforms and arranges the thought. In one whose habits of speech have been brought into harmony with the standards set by his environment, the attention in utterance is seldom turned to the grammatical relations as such, but to the thought content. Then the grammatical conscience acts mainly as a negative check; the mode of speech receives notice only for purposes of correction when something goes wrong. The habit functions continually, but from behind the scenes; it appears on the stage for structural examination only in case

of emergency. While the permanent, familiar factors in the situation may also have remained in the background during the process of discovery, they are now brought forward. General and specific topics before marginal in consciousness are now focused by the mind's eye as grammatical subjects, to be succeeded by their predicates as the attention advances according to grammatical law. While in the more intuitional and heuristic stage the attention may advance from predicate to predicate, in exposition it is necessary more frequently to sum up results thus far and indicate the situation dealt with by a subject-word.

In the interpretation of spoken or written discourse, one's data are certain familiar words and grammatical forms together with either a preceding verbal context or an objective situation which is partly familiar. Experience previously organized as a linguistic habit alone enables one to cope with the novelty of the ideas expressed. In utterance a subjective process gains a kind of objectivity otherwise impossible to it, but this community of meaning in turn depends upon the auditor's subjective reaction in accordance with social usage. Thus grammar is at once a social product and a personal possession and instrument. It is one of the chief intellectual conductors between individuals and a means of uniting members in the social organism in this double process of give and take. While it is true that thought and language processes overlap in the mind and mutually influence each other, yet this contrast may be noted between the sending and receiving aspects of communication: in the former the advance is from ideas to signs, in the latter from signs to ideas. That this distinction is not rigid appears when one notes that, in both speaker and hearer, significant language is a medium or transitional stage between implied and explicated thought, it is an instrument used by each in transforming the vague into the clear, the subjective into the objective.

After the above considerations, it is evident that grammar is but remotely concerned with the vague rise of ideas in the mind, and only indirectly with their inner development *per se*. It is rather the science of language as a medium of communi-

cation, therefore its origin may be traced to either of the two processes, expression or comprehension. Now granting the same degree of intelligent fidelity of the linguistic instrument to the grammatical standards of society, there is little doubt that comprehension precedes expression. This is seen in our ability to understand before we can speak a foreign tongue. Much repetition of the hearing process is necessary before imitation becomes independent use. One set of associative suggestions (that between the auditory linguistic forms and their meaning) must become relatively stable before the speaking movements can be made so habitual as readily to be innervated by their associate ideas. Pupils in any subject may know more than they can tell, tho they will know it better when they have mastered its expression. A child, judged by a standard toward which he is slowly developing, probably gets distinctions and relations which are clearly exprest in adult language before he makes them explicit in his own speech; yet obviously, in all communication between the two, the adult may excel in clearness both of expression and comprehension.

While then the standpoint of the hearer may be the primary basis of grammar, it can hardly be the sole basis, as Sigwart implies. Therefore one may doubt his view that it deals with the forms of *judgment* rather than *judging*, that it assumes a finished, objective *product* of thought as its data or material rather than a *process* of thought or communication. Here the first question to ask is regarding the actual attitude of the mind in the linguistic experience; the next question is how grammar, in its analysis and explication of this experience, should treat it. As to the first, the attitude of the speaker requires little notice at this point. His ideas are not completed before their social expression occurs. Logical and grammatical formulation go hand in hand tho the two processes are not identical. The feeling is probably never of ideas existing *en masse* and having their appropriate expression. They at least *come* into being somehow, and somehow *get* exprest. The feeling of active control must vary with the conditions. It reaches its lower limit in the perfectly habitual expression

of dead judgments, or of customary ideas (salutations, inquiries, etc.) which are regular attachments of certain perceptions. Here the feeling of the momentary existence of the idea or the expression might triumph over that of its growth. And in live judgments about objects, the objective permanence may for one's interest overshadow the subjective change. In that case the *meaning*, "the stone is gray," would imply the continual grayness of the stone, quite aside from the psychology, physiology, and physics of light, *i.e.*, in spite of the error involved. Thus the actual meaning in the speaker's mind must be distinguished from what he ought to mean by his sentence. The critic's danger of committing the psychologist's fallacy will be considered later.

The linguistic experience of the writer is for obvious reasons more artificial than that of the speaker. If then in oral language there are cases where the communicator's attention neglects the fluid nature of his thought, this condition holds still more in written language. The speaker has his auditors before him, he is directly *en rapport* with them and can feel their reaction; the writer must imagine his audience and their capacities, else he will fail to communicate his thought. Whether he has an imaginative sympathy for a concrete group of hearers or auditors, or whether this is but an abstract notion in his mind, in any case it is a means of grammatical control, occasionally a vivid factor of consciousness, but usually commanding little attention as such. The grammatical standard is social in its origin and function, but the social-personal factor may be so thoroly absorbed in the structure of a mental system as to escape detection except under close scrutiny. The writing process is the speaking process refined and supplemented. As it is a slower process, thoughts have a longer lead upon their final expression than in speech. Thus the contrast and felt opposition of content and form are greater. As the thoughts are logically developed, they are silently formulated, but there is more chance for their re-formulation along grammatical lines as the writing progresses. So with any degree of inspiration and free mental play the feeling that one *has* ideas, however vague, which need expression, is a

natural feeling. Even the mode of expression may be regarded as a given fact when one does not have to hunt it up. On the other hand, the shifting, fleeting nature of the ideas, which need grammatical weapons to transfix them as they fly, might characterize the feeling. And especially when the right ideas aren't there but must be secured by effort, would the static yield to the dynamic appearance of thought.

The hearer's attitude now requires analysis. It is evidently a kind of intellectual sympathy, for he must try to compass the speaker's mind within his own. This he does by imagining the speaker's mental processes, which would be an impossible feat except as based on similar past experiences of his own. Such mutual reference of the two parties to any communication, spoken or written, deserves some emphasis; yet the difference between the processes is not to be obscured. To the naïve hearer, both thought and expression are felt as fluid, nor would the assumption be made that the speaker's thought was finished before the words were uttered. In fact, no distinction is made between thought and words save when the latter are unfamiliar. The active side of the process must be remarked. Expectation of certain grammatical constructions, general meanings, and even particular words is present. One gets the cue from a few words and is thus able to construct a tentative meaning, a meaning in grammatical outline; by aid of the context there are aroused ideas which in function are hypothetical judgments conditioned by the forthcoming utterance. This process may even go on in verbal terms. In no conversation is the hearer merely passive; there is a readiness to listen, and one's syntactical habits are the basis of this active response which is another side of the stimulus. Neither words nor meaning are merely given, but felt as the mutual play of two minds. Into the contrast between these minds enters the hearer's sense of the reality of the speaker and of the thoughts and words as primarily his and secondarily the hearer's; a distinction based on sound location, absence of overt articulatory movements, and uniqueness of ideas or language. Finally, let it be noted that what has just been described is the more primitive attitude of the listener, not

that succeeding grammatical and logical study which might engender the feeling of a static and fixt content of knowledge to be grasped thru the given sentences.

The reader's attitude to communicated thought will of course depend partly on his experience and training. While in its nature more artificial than the hearer's attitude, yet it has its initial stages which may be exemplified in the way pupils regard notes past them from their chums. These are felt as alive, as bringing one into intimate touch with an active personality whose thinking processes have received in writing a motor expression which is now to be interpreted sympathetically. Perhaps the boy was even seen eking out his gestures by scribbling the note. Not very different from this is the receipt of a letter from a distant friend. But here, and still more in reading a printed book, there is the evident possibility of abstracting from the source and original process of thinking and regarding the thought product alone. The book is taken as a fixt object. The temporal order of oral speech has been replaced by a spatial order, but as this was gradually (temporally) evolved, so it must be retranslated into the temporal form by the reader. It is this spatial objectification of thought in permanent form that may induce the feeling that the author's thought is a given Reality contained *in* the book, as it were, and part of an objective world of meanings whether logical or esthetic. Tho it be a story of action, yet the story-world stands unique and apart; as a vague whole it is somehow *there* making constant appeal to the background of the reader's mind, while the activities portrayed stand out prominently as its successive determinations. Especially on re-reading a favorite story might one feel that somehow the entire experience is a fixt content to be re-discovered. Literature is viewed as emotional ideas embodied in permanent form, so the reader may be concerned with getting at the permanent meaning in permanent form as well as with a grammatical analysis that aims at the discovery of structure and function in something *given*. Notice how, in this light, the beauty of a poem may seem quite as static as that of a statue.

Such an attitude toward the thought of books is cultivated by our ordinary methods of studying Latin or any dead language where the reader is separated by a wide gulf from the writer and is usually content to deal with fossilized forms and meanings. Latin grammar too often isolates structure, function, and meaning, and leads to the view that language is a mechanical aggregation or dead mass which the pupil may construct or analyze by addition or subtraction of parts. Such an error (if it be an error) on the reader's part may be avoided or corrected by a mode of criticism which seeks above all to reconstruct the *author's* meaning (not the book's meaning), as determined by a study of the man, his times, and his environment. This will bring the reader into some sort of sympathy with the author and help determine the universe of discourse, that larger context so necessary to thorough comprehension. Words and grammatical forms are not to be taken at their face value, but interpreted by a comprehensive mental background which, as regards relevant matter, should correspond in reader and writer. There is an apparent difficulty in the case of myths and folk-tales, but here the concept of authorship should be enlarged and applied to the social group, active thru generations in the creation of a story. The imagination needs some assistance to get back of the final product to the process. In scientific writing, the personality and mental processes of the author seem farthest removed from the result as it comes to the reader, but they can not wholly be dispensed with.

Here we are led to an important distinction (first suggested to me by Dr. Dewey) between the narrational and relational forms of judgment. Consider the concrete case when Tom impulsively dives into the water. Here agent and action, mental processes and the reality are unified. Then his friend narrates the event: "Tommy dove into the water," thus describing an actual situation with change as a prime factor. The sentence stands for mental processes in the minds of speaker and auditor which refer directly to the event; it uses a *real* verb connoting change and not a mere link-word. However, it expresses primarily the objective reference to the event

and only implies the speaker and hearer as cognitive of the event thru memory and imagination and interested in it in a personal way; *e.g.*, in view of their fear or daring, the meaning to the speaker may imply that it was a bold deed, to the hearer that it was great fun. Thus each party to the dialogue has a kind of vicarious sympathy with the real actor, and each puts himself in Tom's place. These implications quite alter the face value of the sentence, so much so as to be a source of possible error in discourse. Therefore this narrative proposition gives rise to doubt and questions which are answered by more critical judgments in relational form. Now attention is turned away from the real situation in which it was before submerged, to the ideas which were crude instruments for reviewing it, and the attempt is made more carefully to define these ideas and their relations. Of course the situation is only neglected in order to return with better facilities for appreciating it. If the question occurs, "Who was it that dove?"—the answer would be, "Tom was the diver," "It is Tom," or "His name is Tom." Such statements help to differentiate "Tom" from "you and me," they are more objective. The real verb splits up into attribute and copula, so the action (diving) is treated in result rather than in process and is, as it were, fossilized. Further, the copula *is* expresses the existence in some manner of the subject and the real connection with it of the predicate; it implies also (as does the word order) the movement of the mind in connecting the two. The tendency, then, of the relational judgment is to abstract from real events, change and temporal considerations as well as from personal bias, and to view the matter objectively, *sub specie æternitatis*. It tries to fix attention on the thought content and the relations inherent and discoverable in thought, but there is no express statement made either of the subjective activity engaged in thinking or of the objective event thought about. Thus the critical judgments of logic are comparatively static on their explicit side, but they have important dynamic implications. That a relation (expressed by a connective, word-order, inflection, etc.) *is* a mental movement can not be denied, but in these judgments it is objectified and

treated *as if* it were a discovered product; it is now exprest as the net result of a past activity that was before implicit.

The importance of this for grammar is seen when we distinguish the more spontaneous and more reflective modes of discourse. The material of elementary grammar should be composed of sentences expressing action, narrative descriptions of concrete experiences which should be *realized* as a condition of their critical study. A more advanced grammar should deal also with sentences that attempt the fixation of thought-relations in words. As grammar is a science whose chief aim is to render communication more comprehensible, the two aspects of this process should be at the foundation of the science. These are not separable to a great degree, but the earliest attempts should be to reveal to the pupil the true nature of his process of interpreting oral discourse. In this the speaking process is involved in a subordinate way, and may gradually be made more prominent. But the processes of writing and reading should be utilized only at a later stage, after some study of the processes of oral discourse, to which the more artificial processes must be traced so that the continuity may be felt.

It is very important for the teacher to remember that grammar deals with live judgments, or at least such as were recently killed. In early stages of the work particularly the examination of pickled specimens stored in a bottle is less fruitful than vivisection. Now the sentence is correctly considered the unit of grammatical study. The parts of speech, with their inflection and meaning, are to be treated mainly with reference to their use in the sentence. In view of this, it might seem that much of the preceding analysis is more relevant to rhetoric than to grammar. But the line between these branches, which really involve each other, is drawn mainly for practical purposes. In fact, a sentence without atmosphere dies. The narrational form arises and exists only in face of a concrete situation, the relational form only in response to an abstract problem. In the one case the pupil, thru perception or imagination, must be in touch with naïve experience; in the other, a real question regarding ideas must stir his mind.

Thus the life of the judgment and therefore of its sentential form depends upon having in mind its context, whether of immediate experience or of reflective thought. A sentence cut loose from its connections in experience or in connected discourse, and treated as a mere example in grammar, changes its meaning. While this truth raises some practical problems of method, it also indicates what the nature of the material of grammar should be.

It remains to suggest how far grammar can utilize and be grounded upon psychological analyses of the linguistic process. This includes the question as to whether grammar is at all concerned with certain feelings and marginal contents, with the thought activity and various implications attending communication. The question is in part whether such factors, when erroneous, should be corrected by grammatical analysis; and if, when correct, they should be further developed.

It was pointed out above that there are vague subjective factors coloring the meaning of every sentence. Every sentence has a *context* which is not its *text*. In every uttered thought there is involved a mental activity which can only later become part of the object known and get express statement. We might put our problem in the following antitheses: (1) So far as the thought-movement is implicit and unexpressed in the popular language, grammatical analysis is not concerned with psychical processes on the side of structure or function, but with the logical and linguistic results; *i.e.*, it is concerned with the central and plain meaning of this particular sentence and the linguistic structure embodying it. (2) But all grammatical study must result in developing meanings not clearly present to the naïve linguist. Every sentence leads beyond itself, and its most vital external relations may be determined by an analysis of the implications attaching to its own form, functions, and evident meaning. By this means a fuller comprehension of language as an instrument is secured. Therefore some, at least, of the psychical processes of the linguist must be considered in our modes of definition and of sentence treatment. Of these two views, the second is preferable for reasons that have already been intimated.

It was remarked above that speaker and writer (or hearer

and reader) sometimes *feel* as if dealing with finished thought and as if (a) reacting on it in habitual manner thru the use of customary grammatical forms (or interpretations) or (b) seeking and discovering the right forms (or interpretations). Sometimes the mind sharply distinguishes form and content (language and thought), as if they were really separable; or again attention may wholly neglect form and mental process *per se* and be turned to objects. Some of these feelings the critic points out as illusory and misleading, tho actual; others need analysis and reconstruction. To this extent grammar aims at a reform of the *psychical*, *i.e.*, of our actual inner processes. On the other side, there is some need of a reform of the *psychological* in behalf of grammar. There is danger, in our analysis of mental processes, that we commit the psychologist's fallacy and mistake our processes for those of the children. We must beware of supposing that what the linguistic feeling ought to be, that it is; or that what the thought implies and means to us, it means to the naïve linguist. Analysis actually develops new and different inner processes; and partly as the result of such analysis, our experience and our context are different from theirs.

Thus grammar, while grounded in the actual linguistic processes of the pupil at any stage, goes far beyond these. It does more than point out what his consciousness has been, it effects a transformation in his knowledge and habits. In acquainting him with the functions of the various phases of the sentence, it demands adequacy and completeness of functioning, and is thus a normative science. Its analyses and definitions, whether of function or structure, contain not so much what the pupil knows and is conscious of, but what he is to learn. It corrects his errors of linguistic attitude or feeling even where the exprest form is right; thus it expands and clarifies his meanings and enriches his thought-content. It looks backward to his past with its formal abuses and shortcomings in significance, but the transformation is incited by a forward look to his increased efficiency in communication and thought.

E. L. NORTON

V

SPELLING IN THE EAST SIDE SCHOOLS OF NEW YORK ¹

In one of New York's East Side schools in a class composed solely of immigrant children, averaging in age from twelve to fourteen, a teacher had dictated to the class a sentence containing the pronoun you. A boy who had misspelled the word listened attentively as his teacher said "y-o-u—you." Then he raised his hand and put the following conundrum to his teacher: "Vy dè vy, and vy de o, ven u is you?"

This boy is a type of the immigrant as we find him in our schools, perhaps on the whole in general intelligence above the average, because many of our foreign children lack the logical mind which dictated his inquiry. Professor Münsterberg has set forth reasons why the spelling of the English language need not be simplified. With his contention, however, that foreigners do not need a simplification of the language, teachers both in public schools and in other educational activities dealing with immigrants can not agree. Unfortunately for America, this country does not receive many immigrants who like Professor Münsterberg "spoke the first English sentence of his life only after having been made a professor in Harvard University"; equally regrettable is it that only an occasional immigrant is a foreigner who "sees the English words before he hears them," to whom "the words are for a long while printed letters on the page, and he has thus no other natural interest than that those words shall suggest as much as possible all their meaning and their internal structure in their outer appearance;" but the foreigner whose education is one of the serious problems of the school world today belongs predom-

¹ A paper prepared for the first annual meeting of the Simplified Spelling Board.

inantly to a class of men and women, boys and girls, from whom, prior to immigration, all knowledge of English, whether written or spoken, was withheld.

With over a million immigrants reaching our shores every year the problem of giving English instruction in a practical form to these masses is one of the most vital questions the school authorities are confronting. If English spelling is full of difficulties for the American-born pupil (and the consensus of opinion both within and without school circles agrees that such is the case), how much more beset with difficulties must it be for the poor foreigner, whether child or adult, who must acquire as rapidly as possible the power to understand what is said to him, the ability to make himself intelligible by rapidly acquiring English vocabulary, phraseology, and idiom; and the art of expressing in writing such of his thoughts as he can translate into English. In a section of the great cosmopolitan metropolis of America, where it is almost impossible to find a child with American-born grandparents, where only a very small percentage can claim even one American-born parent, and where a majority were born on foreign soil, it becomes the duty of all connected with the school system of New York to study closely the needs of these people and to provide relief for unnecessary burdens, when such relief is obtainable by legitimate means.

Aside from the question of Americanizing the foreigner there must be ever present in the mind of the educator the need for simplification of all processes whether of thought or of labor, when such simplification can be brought about by rational means. Economy of time and effort, provided such economy does not interfere with efficiency, should never be lost sight of in our methods of instruction. If there be a short cut towards the solution of a problem in arithmetic, it is a very poor teacher who allows the children to waste time and energy in trying to solve the same by a method involving more processes and a greater number of figures. Surely no one can deny the value of simplification based on such a principle. The same policy is followed by the good teacher in the teaching of algebra, geometry, or grammatical analysis—in fact, in every

study in the school curriculum. Even were ours a consistently phonetic language, spelling should be classed with these other studies, with one general principle always recognized; namely: when good authority sanctions two ways of spelling the same word that form containing the fewer letters should always be insisted upon. Even anti-spelling reformers must agree that this principle is sane and sound.

A close study of the difficulties encountered by foreigners, whether children in the elementary day schools or adults in the evening schools, shows that these difficulties are unfortunately greater than would be encountered by Americans were they to attempt to adopt in any European non-English-speaking country the language of that country. A majority of our East Side immigrants come from Russia, Roumania, or Galicia, with an appreciable number from Italy. The Russian, Roumanian, or Galician immigrant, if a Jew, either man or boy, always has a reading knowledge of Hebrew, even tho he has not mastered the governmental language of the country from which he emigrated. All classes of immigrants in this section of the city, provided prior to immigration they attended the government schools, can read and write as well as speak one language, in addition to the dialect or jargon which may be their native tongue. Hebrew, Yiddish, Russian, and Roumanian are practically phonetic languages. Most words are pronounced as they are spelled, and, what is still more advantageous, are spelled as they are pronounced. It is this previous experience in another language which makes the difficulties of English spelling so trying to the foreigner. The Italian who has had some previous education makes few mistakes in words of Latin origin, but Anglo-Saxon words, particularly those containing diphthongs or silent letters, give the learner much trouble.

The most serious mistakes in spelling occur in the dictated language lesson, or in the original composition work. Lists of words that have been drilled seem to present very little greater difficulty to the foreigner than to the pupil of American birth of corresponding age; but it is in the dictated work and in the original work that natural tendencies to error are shown.

In the dictation a pupil must rely upon his ear alone, and there the prevailing errors are towards phonetic spelling. In letter-writing and other original composition work the errors occur chiefly in such words as have not been made a part of a regular spelling lesson. The errors here are again in the direction of phonetic spelling. Whenever the foreigner attempts to express in written English a familiar thought, the spelling is largely phonetic. When such pupils have been drilled upon regular lists of words, the errors are very much of the average kind. These tendencies prevail with the adult as well as with the child.

Some idea of the difficulties encountered by the foreigners may be obtained from an examination of what follows. These words were selected at random from many class exercises taken from classes of immigrants either in the day schools or the evening schools of this district.

In a class of twenty-four (24) men, average age twenty-five (25), in evening school, kitchen was spelled in seventeen (17) different incorrect ways—

Kitchen:

cichan	citshen	citchen	cetchan	chegen	kishen
citchan	kichen	ketchen	cehcan	cichane	kiechen
chidchan	cichen	chidchon	citjhen	cechen	

In a day class of fifty-three (53), average age fifteen (15), average time in American school six (6) months, average European schooling six (6) years, altho (previously taught) thirty (30) were correct. Eighteen (18) different spellings were found among the remaining papers.

Altho:

aldow	allthow	allough	althou	alldo	oldo
also	allthou	oldow	althau	allthau	olthoug
althow	ollthou	ollthoug	aldo	althoug	although

In evening classes, averaging about twenty-five (25) adult pupils:

please was incorrectly spelled in twelve (12) different ways, eight (8) of the pupils spelling the word *plis*;

cloak was incorrectly spelled in eleven (11) different ways: *clock* and *clok* being the most frequent forms;

blue was incorrectly spelled in eight (8) different ways: *blou* and *bloo* being most prominent;

walks was incorrectly spelled in four (4) different ways: *wolks* and *woks* being the favorites;

tongue was incorrectly spelled in seven (7) different ways, ten (10) of the pupils spelling the word *tong*, strange to say only one spelling it *tung*;

shoes was incorrectly spelled in eleven (11) different ways: *shus* taking the lead.

Teachers and principals in close touch with the class struggling to master enough of the English language to enable the pupils to read and write fairly well, have summarized for me some of their greatest difficulties.

GROUP I

(a) Words requiring distinction between c and k, between g (soft) and j: *engine* spelled *enjin*, *scare* spelled *skare*.

(b) Words requiring distinction between c and s: *scarce* spelled *scarse*.

(c) Dropping out silent letters, *waching* for *watching*, *clok* or *cloc* for *clock*.

(d) Words that begin with qu are often spelled with kw.

(e) Words with silent terminal letters when forming plurals or participles: *love*, *lovs*, *loveing*, *lovd*, *lovly*.

(f) Putting short e for obscure a in words: like *pleasant*, *thousand*.

(g) Using e for final y in *candy* and *handy*.

(h) Omitting the first r in words: like *farmer* and *governor*.

(i) Substituting er for or in words: like *labor*, *governor*, *visitor*.

(j) Words doubling the final consonant: like *beginning*, *dropped*.

(k) Words ending in tion or sion.

(l) The spelling of homophones: like *no* and *know*, *write* and *right*.

GROUP II

(a) Ing and ink, in spelling as in pronunciation: *nothink* instead of *nothing*.

(b) H omitted because foreigners are not used to aspirating it.

(c) Words containing w and th, which being new sounds are confused with v and d.

(d) Words with r because of the name of the latter being understood as the sound, r being called ar—*hard* is spelled *hrd*.

(e) Short e is often used to represent the sound of long a, as *tek* or *teke* for *take*, *bak* or *bac* for *back*.

(f) Words containing short i spelled with ee and the reverse, and words with ee spelled with an i,—*sick* is often spelled *seek* and *keep* is spelled *kip*.

(g) Silent e at the end of a word is almost always dropped.

GROUP III

(a) Confusion in certain diphthongs: *new*, *few*, spelled *nu* and *fu*.

(b) *Round* and *ground* spelled *rownd* and *grownd*; *drowned* spelled *dround*.

(c) The diphthongs containing o, ou, oo, oi, ow, and oa are often represented by single letters, which have a phonetic relation to the sound of the word.

(d) The group of ould-words: like *should*, *would*, and *could*, spelled *shud*, *wud*, and *cud*.

(e) Words containing ir, ear, and ur similarly pronounced: like *bird*, *heard*, and *hurt*.

(f) Words containing diphthongs having the sound of long e as ea in *teach*, ee in *feed*, ei in *ceiling*, and ie in *brief*.

(g) Words ending in ough.

(h) Words where o has the sound of short u: like *some*, *come*, *son*.

(i) Words ending in ey with the long sound of a.

(j) Words ending in final e when the preceding vowel is short: like *fertile*, *examine*.

(k) Words ending in lk: like *walk* and *chalk*.

These difficulties have been roughly classified under three (3) heads:

Group I—General errors common among English-speaking pupils as well as foreigners.

Group II—Errors due to the characteristics or limitations of the language which is the native tongue of the foreign student.

Group III—Errors due to the inconsistencies of the English language.

The difficulties under Group I can be met only by intelligent effort on the part of the individual teacher to trace the cause of each class of errors to its natural source and to remove the cause as soon as it shall have been found. For instance, errors that are repeated in words which have one uniform element can be correctly taught by laying stress upon that element, and drilling lists which embody the same. This applies to such weaknesses as *sk* for *sc*, *oc* or *ok* for *ock*, *ch* for *tch*, *kw* for *qu*. A thoro drill on the phonogram *ock* or *ack* would strengthen not only the spelling of the words *clock* or *back*, but would enable the pupils to spell all words under each series, so that *rock*, *dock*, etc., *rack*, *track*, etc., would present no difficulty. Drill under the rules for retaining or dropping final *e* in forming new words will lessen the errors under (*e*).

The difficulties in the spelling of words doubling the final consonant can be met by a strict adherence to, and frequent drills upon, the one rule in spelling where exceptions need never be made, namely: *that words of one syllable and words accented on the last syllable always double the final consonant, when followed by a suffix beginning with a vowel.*

The difficulties under Group II can be met only by special methods on the part of the teacher to supply the pupil with systematic vocal exercises that shall familiarize the latter with the new sounds until they become a part of his ordinary speech and articulation. A few specific phonic drills frequently repeated will bring about tremendous progress in this direction.

The third group presents greater difficulties and the teacher sufficiently ingenious to overcome the same has not yet been found.

The work undertaken by the Simplified Spelling Board, if

properly encouraged, will in time help both pupil and teacher out of many of the present difficulties. Even tho the schools were to adopt at once the full list of three hundred words, only a beginning will have been made toward real relief in this direction. Just when and how further reforms are to be undertaken is not the vital question at present. We teachers must look to a directing power either inside or outside of the school work, which shall come to our rescue by authorizing sane spelling reforms.

It is strange that a man of Professor Münsterberg's nationality and school history should be so doggedly opposed to any reform in English spelling, since it must have been during his own boyhood that definite and arbitrary reforms in the spelling of German words were introduced into the schools of his native land. The Germans have a direct and effectual way of bringing about educational reforms that we in America have yet to learn. When, about thirty (30) years ago, the authorities connected with the German government decided that reforms in spelling were necessary in the interest of simplifying educational processes, and of making their own language more consistent, what happened? The reforms called for by the governmental regulation of orthography were more far-reaching and covered a very much longer list of words than the three hundred that are advocated by the Simplified Spelling Board. The Prussian rules then or thereafter adopted cover forty-six pages of a pamphlet entitled "*Regeln und Wörterverzeichnis für die deutsche Rechtschreibung zum Gebrauch in den preussischen Schulen.*" The adoption of the Prussian rules did not remain voluntary. The government immediately directed that all school text-books should be printed in accordance with those rules and that all school children should be trained according to the reforms in spelling. Whether or not the newspapers of the day, or individual thinkers, endorsed or opposed these reforms, the decisions of the government were not affected, and the suggested reforms became actual reforms by general usage begun in the school and accepted at large.

Professor Thomas, in his *Practical German grammar*, makes this statement: "Prussia, Bavaria, Saxony, Württemberg, and

other German governments published official spelling books, and the spelling thus prescribed is slowly making its way towards universal acceptance. It should be said, however, that the government rules do not aim at a thoro and scientific reform, but only at a working compromise between the ideal demand and the facts of usage."

The extent to which these reforms are making their way is evidenced by the fact that these recommendations have since 1901 been accepted thruout the German Empire and also in Austria and Switzerland. It is, however, only fair to state that many writers and teachers still continue to use the older spelling, tho with more or less diversity in details.

If from the teacher's point of view the recommendations of the Simplified Spelling Board are open to criticism, the charge must be brought that the reforms suggested are not sufficiently far-reaching to show any practical benefit for the immediate future. Of the three hundred (300) words already authorized by that Board, quite an appreciable number are rarely used in the written vocabulary of school children. Many of the words necessary to the child do not appear in this list, and the sooner the reform begins to include all those words whose silent letters might be dropt, and whose diphthongs might be simplified without destroying the etymological origin thereof, the greater will be the boon to both pupils and teachers.

The Simplified Spelling Board should, for its ultimate purpose, aim at a thoro and scientific reform; for the present, however, it must be content if it can secure "a working compromise between the ideal demand and the facts of usage." That the unthinking public should stupidly oppose such an attempt is understandable; that the flippant, thoughtless, or scoffing element at large should find in the movement a rich opportunity for the exhibition of cheap wit and superficial criticism, was to be expected; that the ultra-conservative classes, the supporters of the "three R's" theory in education, should frown down any advance in this direction, was a foregone conclusion; but that cultured, educated thinkers, men and women who are or who have been students of English—students who are able to trace the spelling reforms of the last five centuries by a

comparison of Chaucerian forms with those of Spenser, Spenserian forms with those of Shakspeare, and all three forms with those of the Victorian age—that such people should set themselves in opposition to further advance along the same lines is incomprehensible.

Whether or not the state has a right to force the issue can not be here determined; but educators and educationists have not only the right but the obligation to carry the reforms forward, and to reinforce their own efforts by influencing boards of education to come to a realizing sense of their obligations to the millions of children in our schools, struggling, often most unsuccessfully, with the intricacies and the inconsistencies of our written speech.

Is there not, in New York State at least, a body that can come to the rescue? Has the Board of Regents no influence or power to help our children? If not, then the state should extend the powers of the Regents. Let others, however, decide *how* the good work shall be done; the teacher's part is to ask that it be done, and that it be done quickly, in the name of the child, in the name of the immigrant, in the name of the struggling, overworked teacher, and in the name of good sense.

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VI

THE PROPER FUNCTION OF ATHLETICS IN COLLEGES AND UNIVERSITIES¹

The subject set for my paper is not the easiest one in the world to discuss in a way at once satisfactory and efficient in results. I wish neither to be destructively critical leading to no practical result, nor purely general and mushy glossing over my honest convictions. Athletics in our colleges and universities and their attendant intercollegiate contests are taken with enormous and rather supersensitive seriousness by our alumni and students. While this is in some respects one of their most objectionable aspects, yet in other respects it is an expression of loyalty and devotion to alma mater that has its good side, and no officer of instruction would wish to fail in appreciation of what is commendable in it. Many a man, disturbed tho he may be over present conditions, hesitates to speak out his convictions and to get into the turmoil of a discussion which seems certain to arouse more or less intense antagonisms and sometimes to lead to estrangements. One can only bespeak forbearance from those who differ, and a consideration of the subject with an eye single to the best and most efficient work of our institutions of learning. For after all colleges and universities are essentially educational bodies whose reason for existence is that they prepare and equip earnest, well-trained, and self-restrained young workers who will take their places in the business and professional life of the country to its efficient maintenance and further proper development. From this fundamental and all-important consideration we must not let our enthusiasms turn us aside. It certainly is true that the importance of athletics is

¹ A paper read at the annual meeting of the Intercollegiate Athletic Association, New York, December 28, 1907.

greatly exaggerated, and in the general view of the field occupied by our educational institutions, both on the part of those within and those without, there is much distortion of perspective. In company with many colleagues I have even heard, with vast dismay, an eminent bishop in preaching a baccalaureate to the graduates of the year, spend half of his time discussing athletics as the paramount interest of the student body, when about fifteen per cent. of his special audience were in the college class of men, another fifteen per cent. or more were women, and the balance came from the several professional schools whose graduates had with few exceptions long gone by the period when they were available for teams. To the officers of instruction it seemed like magnifying a side issue, until the subjects of the first magnitude appropriate for the occasion were all lost to view.

This instance will serve to emphasize one point that I wish to make at the outset. Colleges and universities, properly so called, are not exactly the same thing in this connection. In the professional schools the constituency is older and more settled in its purposes in life. A very large proportion have past their undergraduate days and have settled down to courses of study leading to definite careers. The spur of earning a livelihood is more keenly felt; the demands of instructors are more insistent, and the administration aims to establish the same standards which are required in later life. The faculties are far more restive under the interference of student interests of all sorts with the proper fulfilment of demands of instruction. Membership on an athletic team is often equivalent, in the case of men of less than exceptional ability, either to practical suicide as regards a degree, or to its postponement for a year. It is possible that with reference to purely college matters my own view may be influenced by the fact that I sit also in the faculty of a professional school, where requests for absences for athletic contests are looked upon in somewhat the same way as they would be at West Point. I can well imagine the feelings of the Commandant and his brother officers if schedules were submitted to them with the full expectation of favorable action, each involving from one to several days'

absence upon journeys from fifty to a thousand miles in length, and three, four, or even half a dozen times in a single term. The discipline of a good engineering school is essentially military and the ideals and professional ethics in engineering practise are very much the same as those of the older profession of arms.

Making all these allowances, however, there is no defensible reason why every good college should not be a place of just as insistent and regular work as a professional school, due allowance as regards the grade of work being made for the less mature development of the average student. The ideals of a definite profession as the goal are, of course, not present or at least not so pervasive and unifying, but sound standards of discipline can not fail and the widespread easy-going atmosphere of our colleges is one of their greatest reproaches. They are suffering in the estimate of many discerning observers by comparison with the engineering and technical schools, so that the remark is at times made that colleges have grown to be essentially social organizations where so-called college life and college spirit are chiefly cultivated, while the real educational work of the country is being done in the technical and scientific schools. In the latter, for example, the "gentleman's mark" of C or 70 cuts a small figure. In view of instances of schedules of intercollegiate contests, which I may cite later, and which are the most extensively advertised things whereby observers at a distance may judge the spirit of an institution, it is small wonder that a very unfortunate impression is widely current regarding the real requirements of work in colleges in general.

The subject of the function of athletics divides itself naturally into two distinct parts, one local or intra-mural as we often call it, the other intercollegiate. I can not take them up as entirely separate but will more especially advert to the first and then to the second.

Two years ago intercollegiate contests were confronted with a crisis. The extremely objectionable features of football had raised to an outbreak dissatisfaction long slumbering but none the less intense and sincere. There came a period of agitation and discussion; of some reform and repentance; and of probable

improvement in the game of football itself. I speak with reserve because I do not know the revised game from personal observation. On the whole the net results for betterment according to the hopes of many in our faculties have proved small, and the strength of the grip which this particular sport has upon the institutions of learning has been demonstrated in the most emphatic way. Few faculties can stand against football. Except for the possible amelioration of some of its worst features of play, the following summary is substantially the total. Two institutions on the Pacific coast have changed from the old game to the Rugby type, and so far as I know the substitution is considered a decided improvement. One in the central states abolished the old game, but has this month restored it under restrictions as to numbers of contests. Several others in the same section reduced the schedules somewhat. In the East, one university abolished the game and after two quiet autumns, incomparably superior to their predecessors as regards scholastic activities, is not likely to restore the old order of things. One great university uttered much brave speech and then discreetly stopt short of anything else, thus avoiding by masterly inactivity much uncomfortable agitation on the part of alumni and students, but, as many on-lookers hope, not permanently abandoning the position.

In the matter of football it is also noticeable that in several larger institutions out-of-town games are fewer than they formerly were. Thus Pennsylvania only played one this fall, the Michigan game; Harvard visited Annapolis; and Yale went to West Point and Cambridge. But of course as these teams did not go away from home and yet kept up a full schedule, other teams had of necessity to visit Philadelphia, Cambridge, and New Haven, so that for colleges at large there is in this particular little difference to be noted. I do not recall a case the past fall of a team going off for a week to some quiet resort in order to rest and steady the overwrought nerves of the players anticipatory to some important game—yet within a year or at most two years I think I am correct in saying this has been done by both Pennsylvania and Yale.

There is thus apparently some disposition manifested in two

or three larger institutions to restrict excessive absences—and I may add that at Columbia our committee has endeavored to keep baseball games, lacrosse, and other similar contests confined to Saturday afternoons, a custom which some of us hope to see firmly established.

But nevertheless these results I consider small because the great reform that was before us of magnifying intra-mural games, each community by itself, and of minimizing inter-collegiate contests; of working toward wide and general participation in less intense sport, and curtailing the fierce struggles of a few who had occupied the stage to the exclusion of the rest; of multiplying the players and diminishing the rooters; of increasing the fun and recreation and decreasing the misguided heroism and the spirit of daring to die in the service of alma mater—these all-important considerations have largely dropt out of sight. Yet two years ago they were the great objects in the minds of many professors widely distributed over the country, and as I well know in the estimation of a large committee which took the questions up at Columbia for an elaborate report with recommendations.

I will therefore squarely propound the proposition that the proper function of athletics, whether intra-mural or intercollegiate, is that of recreation and refreshment from the inroads of sedentary life. Colleges and universities are places of pronounced sedentary life and of great drain upon nervous vitality. For most men the life is unnatural and tends to throw them into various disorders which are combated and eliminated by physical exercise preferably in the open air. The exercise is most beneficial when accompanied by the element of fun and amusement or when it takes the form of a contest in a friendly way between individuals or groups, fairly well matched. Such recreation must, of course, take place at times free from serious engagements, as in the hours of the afternoon either early or late, or of a half-holiday specially set aside for them. Or they may be more extensively practised in vacation. As soon as the games or contests during the weeks set aside primarily for work go beyond this field they no longer discharge their proper functions but are over the bounds and are a menace to

the very purposes for which colleges and universities are established.

I venture the statement that in as far as intercollegiate contests are concerned in almost all cases, the arduous training not only passes far beyond the field of recreation and refreshment but is itself an added and exhaustive nervous drain, cutting off the natural supply of energy and strength which ought to go into work. Instead of being a means of recreation and refreshment the teams have in their best uses become rallying points for intense patriotic devotion and support. To students and alumni alike they are concrete embodiments of alma mater, and they fill much the same place that the flag does to a regiment in battle. But in a less commendable aspect they occupy also, in the minds of many supporters and administrative officers, the place of extremely important advertisements, which are exploited in the press as no other form of activity is, and they have a glamor for young lads about to enter college which is believed to help materially to swell the ranks of the Freshman class. For instance, within the past two years, two New England colleges which in the past have borne good reputations for earnest work and serious purpose have sent their baseball teams in the midst of the spring term each on a week's trip to and beyond Chicago. Yet after they crost the Hudson river there is no institution with whom they had the slightest normal or natural rivalry and the taking of a squad of fifteen or twenty young men from their proper duties for a full week in addition to a schedule in other respects normally absorbing can only be defended on the ground of a hoped-for advertisement. I question, however, if the procedure did not alienate more parents than it ever attracted sons, and I believe that, in and of themselves, this and similar practises are thoroly indefensible and have done much harm. The schedule for next spring in the case of at least one of the two institutions referred to, is not essentially different, altho Philadelphia is this year the objective instead of Chicago. Amid these conditions, officially approved, educational obligations of course sit lightly, and a community of young people with a not over-serious regard for responsibilities is the inevitable result.

Instances of this sort, which are not specially exceptional, lead me to advance the next point that, if we must have intercollegiate contests during term time, they should be limited to those with institutions not over an hour or two away on the railway. Where there are lectures and recitations on Saturday mornings, the grounds of the competitor should be reached by a start after twelve o'clock noon. If Saturday is a holiday they should be reached by a morning start. With home and home games, there are few institutions which can not in this way be provided with as many contests as are desirable. If old rivals at a greater distance are to meet, the game should be the objective point of the season and should be placed in the opening of a vacation or during one of the recesses with which our terms are punctuated. If championships are to be decided among several at remote situations, the only feasible plan is to meet as soon as vacation arrives at some central point, and decide baseball, lacrosse, soccer, and the like by a tournament lasting several days, just as we have our boat races in June.

In no other way can proper scholastic requirements be maintained at the same time with intercollegiate contests, and the present practise of games with all sorts of remotely located competitors, with whom there is no natural rivalry and to meet whom long journeys must be undertaken, is only bringing our colleges into great disrepute as encouragers of idleness and trifling. A general agreement among college presidents as regards feasible zones, or at least among committees whose duty it is to pass on schedules, would do much to restore a reasonable balance of conflicting interests, and to ameliorate the hostility which so many earnest and sincere teachers feel toward a branch of student interests whose hold on alumni and undergraduates is exceedingly strong.

Intercollegiate contests are, however, to my mind, the least important feature of the function of athletics in our colleges and universities, for as I said before refreshment and recreation are their main end. The recreative function can only be attained by a wide and general participation on the part of the student body and by local contests between classes, schools, dormitories, fraternities, boarding clubs, or any other groups

large enough to put two, five, nine, or eleven representatives in the field. It is a hundred times more to the credit of Harvard to have scores of boat crews on the Charles, than to win the regatta on the Thames, and it is a hundred times more beneficial for all the rest of us to have our tennis courts, running tracks, baseball diamonds, gridirons, or handball courts thickly peopled each afternoon, by as many teams as they can hold, than it is to go delirious over a contest on which for the time being all is staked. All who are fond of outdoor sports, and at the same time are anxious to do good service for alma mater, may well preach this doctrine in season and out. In its practise, too, I am firmly convinced it will prove more satisfactory to our students and a source of greater enjoyment to them than the present order of things, criticism of which, or opposition to which, makes them so extremely restive and militant.

In summary therefore I will say regarding the function of athletics in our colleges and universities, that it should be essentially one of refreshment from work. Athletics can only accomplish this end when pursued in moderation, by the student body generally, and at hours that do not conflict with scholastic requirements. I am personally convinced after long observation that on the whole we would be much better off in all the main purposes of a college or university if we did not have intercollegiate contests at all, but as I see no prospect of their disappearance, and as I respect the very sincere desire on the part of alumni and students to participate in them, I am willing to concede their indulgence on Saturday afternoons between near neighbors. Where undertaken between rivals, remote from each other, they can only be scheduled during the vacation, if we are to maintain our proper standards of work.

JAMES F. KEMP

COLUMBIA UNIVERSITY

VII

A YEAR AMONGST AMERICANS ¹

I have visited Americans rather than America. I have, indeed, crost and recrost the vast continent, from the Atlantic to the Pacific Ocean and back to my starting point, by routes that have carried me over enormous distances, in such uninterrupted convenience and comfort (the promiscuous sleeping-cars notwithstanding) as I have not experienced in any other continent of the world, altho I have traveled across every one of them; and I have not been insensible, I trust, to the imposing scenery thru which I have past. But traversing America was merely the necessary means to meeting, that I might know, Americans, which was my constant aim. For I would fain estimate the "genius" of this people, and that, I know, is the product, altho it is often endowed with fictitious personal identity and falsely regarded as the producer of, superior to and dominating, the individual characters of the people themselves.

Americans are preëminently accessible, and to meet them required nothing more than easy travel. Their houses lie open to one another and the road, uninclosed by wall, fence, or hedge, as if in token of the neighborliness and friendliness of themselves; and during the year that I have been in their country I have lived literally *chez eux*. Excepting a fortnight spent in hotels, my home has been with professors in their residences, with students in their "fraternity" chapter-houses, with alumni in their university clubs, with ministers in their parsonages, with social workers in their settlements, and with farmers in their homes; and at the moment of writing this, altho under my own flag, I am one of the guests of an American, an ex-ambassador to a foreign court, who

¹ Reprinted from the London *Times*, December 26, 1907.

has his summer home on an island of the Canadian Muskoka Lakes, or—to be strictly accurate—has the island as his home. The strenuous American at work is a familiar sight, but I have the advantage of also seeing the relaxed American at play; and no man can be known who has not been seen in his recreations as well as at his tasks. From coast to coast I have also been in touch with immigrants who, while in process of transformation by “native” Americans, are exerting far-reaching reactive influence upon them.

But Americans are more easily met than known. Like other people, they practise reticence and reserve; and, more than other people, they are other than they seem to undiscerning eyes. Without intelligence, sympathy, insight, and breadth of view, observers of them are as idols—“eyes have they, and they see not”; and the traditional European estimate of Americans is based upon the impressions of such, who yet have spoken, and have been listened to, as if they were gods, as they pronounced judgment upon a great nation which they themselves were too small to understand. Americans, with characteristic good humor, express their sense of this weakness of ours in the story of a “Cockney” who on his return to England reported of the speech of Americans, that they say “Where am I at?” when we should say “Where is my ‘at?’” !

I am painfully aware that when I first came to this country I was under the influence of this false tradition, and that, in consequence, there was, even in me who less than the least of all critics have right to it, that “certain condescension on the part of foreigners,” which Lowell has so charmingly described. I came at my own instance, to serve my personal ends, and under no promise to write, provoked partly by the contrast between Americans as I had found them in Europe and Americans as books declare them to be in their own land. And here, in the presence of this people and their achievements, after living intimately with them during twelve consecutive months, drinking in, at all the pores of my mental and moral sensibilities, the signs which no one who has any habit of observing men with open heart as well as open mind could fail to dis-

cern, I have gained a new estimate of the people whom I "came out to see."

I shall be more restrained than Americans themselves in my criticism of American institutions. Their present temper disposes them to excessive self-disparagement; and, indeed, a humble heart has always been beneath their bluster and brag. The loud depreciation of themselves that is, and the louder appreciation of themselves that was, can be traced to a common root. It is easy to believe that, to wield any kind of influence over the masses of an enormous democratized community in whom ultimate power lies, an individual must make his exprest opinions much more pronounced than his inward convictions. Therefore, when the nation, after its first years of national inexperience, which were characterized by unreasonable optimism, was in danger of growing diffident in face of its great and increasing responsibilities and tasks, its leaders made conscious exaggeration, in order to maintain the nation in a just appreciation of its powers; and the people, slow to see thru the exaggeration, were quick to make it their own, and then were inevitably driven to spend themselves that they might make sure of the wealth, and to throw themselves into violent motions that they might make sure of the powers, which they had been told that they possest. By this process, without gaining the assurance that they sought, they lost the secret of silence, dignity, and repose; and more than ever it seemed necessary, in order to impress the people, to resort to noise and effort, to act and effect. Then was the era of brag. But when, at last, the evils wrought by the old exaggerations became apparent to a few, these, in order that they might be heard by the many, practised new exaggerations of speech and act in a direction opposite to the old; and the unqualified denunciation of the ills of the body politic which have filled the land during recent years, and the spectacular legislative measures proposed as a remedy, have had so potent an effect upon the popular mind that, in America, bragging is in danger of becoming a lost art. Two distinguished Oxford professors whom I have met, one in New England and the other in California, have said to me, in amazement and not without regret,

that during many weeks spent in the country they had not heard a single brag. My experience has not been quite as happy as theirs, perhaps because I have gone further afield; but candor compels me to say that I have met fewer braggarts during the last twelve months than I should have done had I spent them under the British instead of under the American flag, and that of "a certain condescension" I have seen nothing at all.

"Boosters" have, indeed, afflicted me every day—men, women, and children who have pledged themselves to glorify their particular states and towns in the hope of making, by calling, them great. In the West, every town has its "Boosters' Club" whose members wear a conspicuous badge; and every available advertising spot is placarded with appeals to every inhabitant to "Be a Booster"—and, if a boast will help to boost, no good citizen will doubt that the end will justify the means. In the village of Pecatonica, Illinois, a man was heard, and every other man there and in every other American village, town, or city may any day be heard, solemnly declaring: "This is the greatest city in the world." But all this loud affirmation is always with business intent and rarely without a saving sense of humor. It is conscious and avowed; it is naked and not ashamed. It indicates the essential vigor rather than the vanity of the social body. It shows that the people are progressing, but not fast enough to suit their desire. And, in the grateful sense of their exuberant youth, one forgets to be shocked by the lack of dignity, refinement, and restraint which it displays. This is different from the national boasting with which America is universally charged and which, if it ever was, no longer is; and it is high time to drop the threadbare gibe that Americans are a braggart people.

The first settlers in America were brought face to face with an inspiring vision; their hearts beat high with the hope of a new social order; they heard the challenge of liberty, equality, and fraternity; and they flung themselves with transport into the new day which seemed to them to have dawned. And the remarkable achievements of the early Puritans were largely due to their sublime faith that New England was charged with

the divine mission to show the world what human society might be, when governed by constant devotion to the revealed law of God. Soon shades of the prison house closed in upon the growing nation. National experience, as was inevitable, modified the early faith; and the nation would be not less, but more, fitted for its eternal task if it were merely disciplined and chastened, and if, with the discovery that liberty is not a pastime, it had made the more important discovery that liberty has greater virtue and value on that account. But, in the difficulty and disaster of self-government, the splendid vision seems to have fled and to be discredited. Liberty is in danger of becoming only a politician's watchword or a sigh on the lips of religion; few dare hope any longer to realize it in full-breathing flesh. I take, almost at random, an article on social and political conditions in one of the popular magazines, and in this sentence I find the present popular mood expressed:—"The American people finds itself today in the position of a man with a dulled knife and broken cudgel in the midst of an ever-growing circle of wolves." This temper is far removed from the former national gayety of heart which the nation, still young, ought still to possess; and, if it could be done without impertinence, I should suggest to those public men who have the national welfare at heart that the fact that President Eliot of Harvard University, Miss Jane Addams of Chicago Hull House Settlement, and others who do not "lift up the voice or cry in the street," exert wide and profound influence, indicates that America still has an ear to hear the "still small voice" when, by it, an enlightened conscience, an informed mind, and a balanced judgment find expression in unexaggerated phrase.

The lack of democratic confidence shows itself in ominous ways, most ominously perhaps in a drift to what might be termed an elective despotism. At New York and San Francisco, and at many points between these geographical extremes, governors, mayors, and commissioners have been vested for a term of years with larger powers than Englishmen would surrender to any individual, however worthy, or to any commission, however carefully selected, even for a day or an hour.

"The cure of the ills of democracy is more democracy" was once the American shibboleth, but no one can or dares pronounce it unfalteringly now; and, as the machinery of democratic government, groaning under the pressure of new demands, breaks down in any of its parts, the attempt is made to repair it, not by providing a more vital and genuinely organized expression of the popular will, but by giving to administrative officers more and ever-increasing power.

I attended a "town meeting" at Wellesley Hills, Massachusetts—a New England town. As completely as in the ancient Greek city-state or in the modern Russian *mir*, pure democracy was in action. Every item of business, great and small, all that might affect in any degree any individual of the town, from the appointment of executive officers to the naming of streets, was submitted to the entire body of the townsmen for decision by themselves. It was democracy as it once was everywhere, and is now only here and there, in this land. I should be the last man in the world to suggest that no administrative act can be truly democratic unless the people *en masse* assemble to initiate and to approve it. Such a doctrine is both absurd in itself and the *reductio ad absurdum* of government, as I heard the president of Columbia University say in a vigorous address to the University of California. "It is a false, spurious, and misleading democracy that would destroy efficiency in working out the people's policies by insisting that all the people shall join in working them out." But that is also false democracy which, from fear of the people, surrenders popular rights to commissioners appointed by elected officials and placed beyond popular control; and this is what is seen in America today. Massachusetts will serve as well as any other state to illustrate the impotence to which the people have been reduced. Complaints were made of gross mismanagement of the prisons of that state. But upon investigation it was found that the prison commissioners could not be reached after their appointment except at the trouble, expense, and delay of judicial investigation; and nothing was done. The system gives great power without proper responsibility; it tends to remove the people's government from the people's

control; and it even fails to secure efficiency. Yet that, if it be a democracy at all, is democracy as it is in many cities, and is tending to become in all. It is an attempt to cure the ills of democracy by less democracy. It is adopted as a heroic remedy for the corruption of the "political machine"; but a question has been asked which might well give reformers pause: "Is not the corrupt politician, because he is democratic in his methods, on a more ethical line of social development than the reformer himself?"

This retrograde movement is likely to be continued, at an accelerated pace, in the immediate future, if only from fear of the too forward movement of socialism, which is becoming a serious menace to the state. Americans are impressionable and volatile and disposed to run to extremes. They are quick to take up new ideas and to carry them to their utmost extent. They have not, nor could they have, the deepness of earth, the strata of deciduous leaves of ages of experience, which instinctively supplies counterpoises to partial or novel impulses. In athletic contests between America and England, America shows greatly superior form in those "events" which depend for success upon nervous energy—sprinting, hurdling, and jumping—while England excels in those that demand sustained effort; and "An American at Oxford" has drawn the conclusion that the crispness and variety of the American climate fosters nervous energy at the expense of physical vitality, while the equality of the English climate has the opposite effect. In the long and arduous task to which the American democracy is committed, will the endurance of the future equal the splendid energy of the past? That is really the question that was raised by the Secretary of State, Mr. Elihu Root, when he recently imprest upon the students at Yale University that, while democracy has proved successful under simple conditions, it remains to be seen how it will stand the strain of the vast complication of life upon which the country is now entering.

Of the answer no one who knows the American character can have serious doubt. These movements which I have noted, greatly as they have affected the surface of American life, yet

remain superficial. Americans are essentially conservative. They still are, as they were found and described by Ambassador Bryce, like a tree whose pendulous shoots quiver and rustle with the lightest breeze, while its roots enfold the rock with a grasp which storms can not loosen; and America clearly evinces its English origin in this, as in many other ways. Miss Jane Addams, in her *Newer ideals of peace*, even says:—"In our overweening desire to remain Anglo-Saxon, we have fallen into the Anglo-Saxon temptation of governing all peoples by one standard."

The American is, indeed, other than an Americanized Englishman. He is, as he claims to be, a new man. No one who has lived in Australia and South Africa as well as in America can fail to realize that the American, in a sense which does not apply to British colonists, has been made over into a new man by the new mode of life which he has embraced and the new government which he obeys in this new land—a man who acts upon new ideas, new principles, and new prejudices in this new world which he has made his own—a man in whom the climate and other potent factors of his new physical environment have wrought a new physiological type, while the more subtle influences of a new continent, which he has had almost to himself and in which he has long been kept practically free from contact and entanglement with the old world, were producing a type intellectually and morally new.

But the master-force in American civilization has been, and is, the Anglo-Saxon spirit derived from the English settlers who colonized the new world. The greatest migration of historic times has been to America from all the other nations of the world; but the extreme preponderance of the English stock in America up to 1850 made a center of influence that has proved irresistible in molding into its likeness all subsequent settlers. Never was such an absorbing and transforming power as the English race domiciled in America, speaking the English language, possessing the English moral, legal, and political ideals, and developing the precedents of English freedom. In consequence, the new American has the old English dislike of great schemes and of heroic remedies and of actions

which are destructive of a complex civilization; and in America, as in England, freedom will broaden slowly down from precedent to precedent and prove enduring because broad-based upon the people's will. And now that America, like England, has colonial possessions, and the future of imperial democracy rests with these two nations, it is inevitable that a common task and common responsibilities shall tend to fuller mutual comprehension and closer fellowship—perhaps even to conformity to a common type.

A wit who does not lack wisdom has said that the English love Americans but not America, and the Americans love England but not the English; and I am afraid that I must testify to having discovered in many Americans a prejudice against me as an Englishman, which had to be overcome. It was not often made plain, for Americans are the politest people in the world. They are not, indeed, as careful as Europeans, they are even much less careful than British colonists, to observe the gradations of conventional politeness according to rank, age, and station; and I must confess that sometimes I have been foolishly disposed to resent a certain ease and familiarity of bearing and manner and tone on the part of men in positions which, being classified as "inferior" in other countries, are accepted there as involving an obligation of particular deference to the members of a "superior" class. But this pettiness past as wider experience brought the discovery of a new and more genuine, because more inclusive, politeness, human and general, rather than individual and relative to persons. It may be that there is less courtesy in America than in Europe—that the esthetic delicacy and distinction, the urbanity and suavity, all that makes the charm of the aristocratic cultivation of the old world, is lacking here. I do not dare to deny, and I do not need to assert, this: have I not heard it asserted by Americans in New York and Chicago who are laboriously striving to create a society which shall have these inestimable qualities? But, certainly, common politeness, as I have said, is more human and general in America than in any other land. This is due to the wide, altho, of course, far from universal, acceptance of personality as superior to all

accessory attributes, such as rank and power or even wealth, and as constituting what is essentially real and intrinsically valuable; so that to every person respect, and to all persons equal respect, is shown. This is the distinguishing feature of American life. It stamps the country as a democracy, in fact as well as in name; it makes it "God's Country" for the common man as also for the uncommon who remains sufficiently a man; and it gives an unquestionable sense of personal dignity and a distinction of personal bearing to the ordinary man. But, in spite of the invariable politeness of Americans, some traces of their prejudice against Englishmen can be discerned. It has been created by a certain tone of superiority over Americans which Englishmen unconsciously, and therefore all the more impertinently and offensively, have assumed. But amongst all classes of Americans, not excluding even the Americanized immigrants from elsewhere than England, there exists a deep and noble desire, which finds expression in many forms, sometimes pathetic but always dignified, that the Mother Country, whether or not she admires and loves, should know, understand, and comprehend her offspring of the West. Few traces are now found of the habit that once prevailed, of branding as servile and un-American this natural susceptibility, this English instinct, of a people of English descent. This habit grew patriotically out of old contentions with England and politically out of a desire to conciliate the Irish-American vote. But there are some faults which require quiet and leisure for their growth and education; and in America—it is one of the great compensations of her strenuous life—there is everything that can force a man out of a narrow sensitiveness, out of brooding thoughts, out of vanity and egotism. And now no American thinks to prove the purity of his patriotism by flouting the land in which he has a legitimate right, or of spurning any of his just hereditary share in the great traditions of his ancestral country. And Englishmen are increasingly realizing and taking parental pride, if not even claiming a parental share, in the achievements of the great and independent nation that has sprung from their loins. *Gaudeamus igitur.*

VIII

DISCUSSION

SHOULD WE TRY TO STEM THE TIDE?

The EDUCATIONAL REVIEW for October, 1907, contains a very striking article by Professor R. M. Wenley entitled "Can we stem the tide?" It is a stirring indictment of the arts faculty of the American university on the charge of failure to perform for the public the services which such a faculty should perform. We are told that the arts faculty has become the prey of the *bourgeoisie*; that "Success," "Progress," "Expert knowledge" are the legends carved high and deep over its doors; that immediate victory, the result of immediate use of professionalized preparation, dominates the people and has infected the entire educational system; that we have concluded that all progress relates to mechanical contrivances, to buildings, equipment, methods, and so forth; and that we never inquire if it have aught to do with the production of virtue, much less of wisdom. Hence our students "trained to colossal sobriety over the gravid possibilities of a comfortable livelihood, are dedicated, contrariwise, to frivolous ignorance about man himself in his profoundest needs. The 'expert,' thus let loose for its punishment, upon the people who shout for him, is that paradoxical animal—an 'educated' man who knows nothing about the relative values of life."

After explaining in some detail the situation, and offering some explanations of its causes, Professor Wenley makes the following suggestion for reform: "As to reform, then, the burden lies with the community in general. But, even at this, certain statements are in order. The humane spirit in man can be developed in but one way—by contact with its like. Intimate appreciation of such human achievements as take their places above the dust of contemporary controversy, and are, by

common consent, able to elevate out of self-regarding and temporal pursuits, should receive strongest emphasis in higher education; indeed, the arts faculty can not overemphasize them in the present crisis. The transitive factors operating, deep down and unobserved, in modern civilization—the heritages, to wit, from Judea and Greece and Rome,—should be placed in the full light of day, in all their amazing vitality; the duty of the youth to familiarize itself with them should then be insisted upon. Students should be taught to inquire, in this connection, whether they grasp fully, not the forms and husks, but the spirit and implications of the languages, literatures, and pure sciences they follow. The inhibition of younger minds by the fixt dogmas and catch-words of older folk should be ended—it can not be mended—and a concentrated effort should be put forth to elicit originality and to foster independence. Indeed, the problem of individuality and independence, in all things connected with human study (in philosophy and literature and language and pure science), overshadows everything else. Pedantry and picayune methods have had their way all too freely, and the youth are sick to death of it all. The touch of personality, of enthusiasms mediated thru a palpitating individual, alone holds magnetism to retrieve the academic cause already handicapped nigh extinction by a materialized society. Imagination, fresh outlook, in short, any sort of stimulus to inborn capacity, ought to command a decided premium. We have so little of it that we can not pay too high a price when we come upon it. So much so, that we should not err by giving a freer rein to these qualities than might be wise in other and happier conditions. Men are suffocated in our dense atmosphere, and individuality alone is able to disperse the miasma. But, to this end, utilitarian system must go, in order that ample room may be given to any one who, having discerned his bent, has a mind to concentrate upon it, with a decent certainty that he will not be sent to Coventry or stranded in life. In a sentence, the arrangements of the arts faculty ought to be controlled by transitive personalities, concentrating their special talents upon the discovery of their successors and superiors."

It is with no intention of making light of the serious situation to which Professor Wenley thus fearlessly calls attention, nor yet with any idea of offering opposition to his analysis of the difficulty, that I contribute the following remarks to the discussion which he has so ably opened. College men generally, who have studied at all carefully the mental attitude of our modern college students, must agree with much that Professor Wenley has said. They must also agree that the reforms which he suggests are very desirable,—the arts faculty would be a far more useful body were it to carry out these reforms. It seems, however, perfectly clear that, even if these suggested reforms were carried out efficiently, and with much enthusiasm, the present situation would be neither mended nor ended. In other words, the suggested reforms are not adequate—even if ideally executed—to cure the present distress; for, if the public demand is the source of the trouble, that demand must be altered, as Professor Wenley says; and this, it seems to me, can not be done by any changes in the arts faculty alone. It must involve changes in all parts of the educational system. All must agree to this; and so we are led to the question: "What sort of changes in the lower schools would be most efficient in producing the much-to-be-desired result?"

Before attempting to answer this question, it is necessary to restate the problem by first pointing out what seems to be the fundamental failing of all modern educational systems. It is the failure to impress the student with the reality of the intellectual and human spiritual treasures that we would bestow upon him; and, since concepts and ideals possess reality only when they are contained in the vessels formed by individual experience with the concrete world of nature and of human affairs, the failure is due to our having given to the child insufficient individual experience with nature and with human activities.

It seems clear that the words and the language in terms of which we discuss ideals are derived by analogy, by correspondence, or by symbolism from concrete experiences. These experiences furnish the mind with definite and clear pictures of relationships, and it is by means of these pictures that ideals

may be clearly grasped and definitely expressed. But if we attempt to convey an ideal to the child by means of words or of pictures that have not been defined in him by his own concrete experiences, his grasp of the ideal must be vague and hazy; and he eventually must reach the conclusion that such ideals are but shams. Can a man born blind ever grasp as clearly the meaning of the expression "I see the truth" as can one not so born?

Is not language a form of mental currency, whose value depends on whether it is backed by a sufficient quantity of real wealth,—the gold of concrete experience? When the gold reserve is low, currency is inflated, wild-cat business methods prevail, and there results financial chaos. So with the mind when its gold reserve is low; if ideals are not based on pictures formed from individual concrete experience, but are told in words whose meanings may also be vague by reason of lack of concrete basis, those ideals will not seem real to the individual, but will possess all the characteristics of a twenty-dollar bill which is not backed by an adequate gold reserve.

As is well known, this is the idea to which Froebel tried to give expression in the kindergarten games,—concrete experiences which should impress on the child's mind real pictures of relationships to be encountered later in life. This is the sort of thing now needed in the elementary and the secondary school in forms suited to the varying ages of the children. When this has been adequately done,—and not until then,—will the students of the arts faculty be impressed with the reality of the ideals which we would impress on them. In reality, are we not now passing on them counterfeit, or at least debased currency,—currency not backed by an adequate gold reserve?

The problem then is to introduce into the schools work with concrete things—both of nature and of human life. This is the function of nature-study; but study of nature must be supplemented by study of man's conquest over nature, *i.e.*, of industrial and technical processes. If this is properly done at the right age, the student will not feel, as he does now, the unreality, the sham, of much that we would teach him; and he will not later plunge into and pin his faith upon the only real

thing to him, namely, the concrete things denied him in his youth. This, it seems to me, must be done before the reforms suggested by Professor Wenley would become efficient. It would avail little to place in the full light of day the heritages of Judea, of Greece, of Rome, and *nota bene*, of the Teutonic races, unless the mind of the child is in a position to appreciate their meaning because of previous concrete experience,—he must imitate and live them to make them really his.

How to do this successfully is a matter to be settled only by experiment. We need an elementary and a grammar grade and a high school Froebel to guide these experiments. Yet we should not, in the absence of such leaders, cease to work on and to gather such data as we are able.

Hence, in answer to Professor Wenley's query: "Can we stem the tide?" I would answer: "Should we try to stem the tide?" Would it not be better to seek to control and to guide the tide into suitable channels? This should not be difficult in the present situation, since the tide is setting in strong toward an appreciation of the concrete things of the world, and since a more extended experience of the right sort with these same concrete things in the earlier years of education seems to be the missing link in the entire system. When this link has been properly supplied, the arts faculty will find itself reformed, whether it will or not.

C. R. MANN

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IX

REVIEWS

L'enseignement, la doctrine et la vie dans les universités musulmanes d'Egypte—Par PIERRE ARMINJON, Professeur à l'Ecole Khédiviale de droit du Caire. Paris: Félix Alcan, éditeur. 294 p. in-8°, 6 fr. 50.

The author of this book has made a study of the history, the curriculum, and the discipline of Mohammedan universities, for which his experience and his opportunities have well fitted him. At the great university of El Azhar fifteen thousand regular students lead a life not unlike that of university students in the medieval period of European history. They are educated in the traditions of a rigid scholasticism. The mass of the curriculum in which they are drilled constitutes a kind of linguistic, philosophical, theological, and judicial encyclopedia of ideas, and dogmas, and casuistry. Arabic logic, and the philosophy of Mohammedan law, are among the more interesting sciences into which this curriculum is differentiated. The Koran is its basis of infallibility, its charter, and its Aristotle.

Under these circumstances, uniformity is the characteristic of mussulman learning. One faith, one law, one civilization, so far as the force of objective circumstances will permit, animate the fold of Islam from Morocco to distant China. To Cairo, therefore, there come students from India, Java, Afghanistan, Arabia, Turkey, Syria, Morocco, Tunis, Tripoli, and the Soudan. And only at El Azhar, the greatest of all the mussulman universities, is the foreigner admitted within the gates of the learning of the faithful.

The discipline of the mussulman universities is not only uniform but permanent. In form, if not in all the fulness of its proselytizing spirit, the ancient civilization of Bagdad and Cordova is perpetuated in the *medressehs* of the Delta. In the wider as well as the narrower sense of the word *educa-*

tion, the secret of mussulman education is imbedded here. The vivid account of M. Arminjon includes a history of the universities of Egypt in addition to an analysis of their curriculum, discipline, ordinances, and requirements.

PERCIVAL R. COLE

TEACHERS COLLEGE

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The moral damage of war—By WALTER WALSH. Published for the International Union by Ginn & Company, Boston. xiii+462 p. 75 cts.

Among the number of books published by Ginn & Company in the interest of the Peace Movement, there is none more powerful in its denunciations of war than this exhibition of the disastrous consequences of the Boer War on the British people. Perhaps it is the concreteness of the case which makes the arraignment so impressive; we hear the indignant ring of personal experience, not the cool argument of theoretical reasoning. The author shows the evils of war not from the usual sentimental point of view, he does not arouse our pity with the unfortunate victims, nor our horror at the atrocities of war, but his rigorous appeal is address to our moral sense. The depth of his feeling, the seriousness of his purpose, and the sincerity of his wrath lend themselves to his language, which can not fail to strike responsive chords in the heart of his readers. What Mr. Walsh aims at is best said in his own words: "The last evil of war is not its ruin of cities, wasting of homes, burning of cornfields; not its plague, famine, or fire; for storm and earthquake, raging flame and devouring flood, lingering decline and swiftly fatal machine, rushing train and suffocating mine, ravage equally with the red field whilst they are innocent of the flagitiousness of war—the peculiar sin of which is that it corrupts while it consumes, that it demoralizes whilst it destroys. It is not because war kills that it is the devil, but because it depraves; and it is because it depraves that it is condemned by the religious consciousness."

After a preface which is well worth reading, Mr. Walsh

treats in an introductory chapter of the immorality of war in itself, and points out how little all the intellectual arguments against war and all practical remedies avail in case one's own country is involved in an international conflict. He feels keenly the inconsistency of the Boer war following immediately after The Hague convention and the illoyalty of many of the English peace advocates, who as soon as the war tocsin sounded betrayed the principles they had so loudly proclaimed. It is another evidence of the sincerity of the book that the author confines himself in his accusations almost entirely to his own country, taking his proofs and verifications principally from the incidents of the Boer war, just adding sufficient facts from recent American developments to make application to the whole Anglo-Saxon race. Not that he claims them to be any worse than the rest of the world,—he does not fail to state that conditions are the same in all countries,—but he avoids in this manner any suspicion of Phari-seeism and gives himself an example of that higher patriotism for which he pleads so earnestly thruout his book. He proceeds to show the depraving influence of war by devoting one chapter each to the moral damage done to the nation, the child, the soldier, the politician, the journalist, the preacher, the missionary, the trader, the citizen, the patriot, the reformer. If one would look upon the book as a philosophical treatise, fault might be found with this arrangement; necessarily it leads to repetitions and the different ways in which the mischief is done are not clearly distinguished, nor do the groups exclude each other. With most of them the demoralizing influence makes itself felt indirectly; the presence of the army, the instrument of war, is a temptation to use it for selfish ends, to make bold to defy justice, to insult others, to try oppression at home. The reformer, of course, will not himself be depraved by war, but the interest of the public will be diverted from the desired improvements and therefore his reforms will be prevented. But since the purpose of the book is to arouse our moral consciousness and this purpose appears to be accomplished to an admirable degree, this shortcoming can

hardly be counted against it, and might have remained unnoticed but for the critical attitude with which a reviewer naturally approaches his victim.

The convincing force of the book, however, is not entirely limited to the personality which is revealed in its language, but in the array of facts given by which the author supports his accusations and statements. In this respect the notes added to each chapter are, in some places, as interesting and valuable as the text itself.

The space allotted to a review will not allow us to follow the author thruout all the details of his chapters or even to point out especially striking parts of the book,—there are too many of the latter. He shows the repulsive forms in which the war spirit clothes himself at home, “the brutality of the man in the street, the cowardly swagger of the music hall, the prostitution of the pulpit to a heathen deity, the blood lust fostered by theaters, inculcated in schools, preached in churches, propagated by our women, profest by our children, practised by all.” Worse than “the infernal lyddite hurling its baleful vapors to the sky, thence spreading abroad over the fields till vegetation droops and every living thing sickens and dies,” he finds “the more infernal exhalations that come reeking up from the hell heart of the homeland till the whole atmosphere is thick with hate and murder”; worse than “the camp, the sentry on his rounds, the bugle note, the marshaling of embattled hosts,” he finds “the club, the exchange, the school, the church, the pedagog pouring hate into the helpless ear of innocent childhood, the pulpiteer preaching hate where he was vowed to preach love, the journalist with his yellow sheet fanning the flame of hate, the politician piling fuel on the fires of hate, the stock jobber telegraphing hate for percentages, the mob roaring, rabid, riotous”; “the devils of hate and murder, of cruelty and revenge, of falsehood and covetousness, ceaselessly raging, devouring, howling, all in the burning hell of a diseased and demented ‘patriotism.’” (p. 46.)

Thoughtful friends of peace have long ago gained the con-

viction that all success of the peace movement would be only temporary, if not hollow altogether, if the war spirit could not be quelled in the nursery and in the school. How necessary and how difficult a task this is becomes evident from every page of this book. No thoughtful teacher, that is, no true educator, can afford to pass by its contents. It is he who helps in shaping the character of the future "politician, journalist, preacher, missionary, trader, citizen, and patriot," it is he who, so far, instead of trying to raise, through his pupils, the morality of his nation, has done his best to perpetuate that "moral duality" which gives one law for the individual, one for the community, and by this not only continues international anarchy, but unbalances the moral judgment of each individual. Of special interest, of course, for the readers of the *EDUCATIONAL REVIEW* will be the chapter on "The moral damage of war to the child," which shows how the war spirit is fostered thruout childhood. The positive conclusion drawn from this state of affairs is reached by the author in the demand that "History must be re-written from the standpoint of humanity," that "the human types held up before the mind of generous and aspiring youth should be those of the saviors, not destroyers, of their kind—the antique sage and modern inventor, the saint of old and altruist of to-day, the prophets, apostles, and philanthropists, slum workers, explorers, and living martyrs of the age we live in." (p. 91.) The necessity of such reformed history teaching has been emphasized repeatedly. That history is not the only branch of study in which the war spirit is fostered is well known. Mr. Walsh's book, tho not speaking explicitly of all points, will help to make this spirit recognized wherever it shows itself. How deeply rooted the prejudices of wrongly taught history are, Mr. Walsh himself shows by furnishing an involuntary proof in placing Bismarck with the great "imperialists" Cæsar, Alexander, Tamerlane, while he certainly has been the most energetic representative of nationalism, so greatly praised by the author,—if realized outside of Germany.

Perhaps of the greatest value to the teacher will be a

thoughtful consideration of what the author has to say on Patriotism. The next time she witnesses that wonderful "salute to the Flag" which out of the free and spontaneous expression of a beautiful sentiment has made a mechanical, meaningless drill and formality, let her ponder over the sentiment expressed by Mr. Walsh on p. 397: "The honest lover of his country is he who endeavors to make the homeland home-like, the fatherland fatherly, the motherland motherly, which can not be done by expansion and foreign war, but only by the arts proper to the spade and plow." It seems to the present writer that this conception of patriotism ought to be implanted in the soul of every boy and girl. If this be the case, some day books like the *Moral damage of war* will be looked upon with wonder that there ever have been times so barbarous as to provoke such scathing reproach. But, alas! today it is only too necessary that its voice should be heard and taken to heart by every person, and its lesson should be learned—and taught!—by every teacher.

ERNST RICHARD

COLUMBIA UNIVERSITY

Essay on the creative imagination—By TH. RIBOT. Translated from the French by ALBERT H. N. BARON. Chicago: The Open Court Publishing Co., 1906. xix+370 p. \$1.75 net.

Teachers of psychology and of education will be glad to have for the convenience of their students an English version of Professor Ribot's *Essai sur l'imagination créatrice*. The book is, it will be remembered, an analysis of some of the facts of creative thought preceded by an exposition of reproductive and productive imagination in the technical sense. It is one which often disappoints the ultra-scientific student, who becomes irritated at general hypotheses of a semi-verbal character in spite of admiration for the author's versatility and frequent brilliancy. But a majority of students of psychology and education prefer such a preliminary survey of sweeping questions to a straightforward array of evidence bearing directly upon some clear issue of fact.

The translation is somewhat awkward and in too many

places is careless. For instance on p. 21 a quotation from James, given by the way without any quotation marks, suffers somewhat. I give parts of the two versions:

JAMES' ORIGINAL

If all cold things were wet and all wet things cold, . . .

What is associated now with one thing and now with another tends to become dissociated from either. . . .

One might call this the law of dissociation by varying concomitants.

THE TRANSLATOR'S VERSION

If all cold objects were moist and all moist objects cold,

What has been associated sometimes with one thing and sometimes with another tends to become dissociated from both.

This might be called a law of dissociation by concomitant variations.

The translation also here renders *tout au contraire* by "on his part." On p. 45 "it has reason for its being" is the translation of *elle a sa raison d'être*. On p. 55 we read the "artificial paradise . . . have made known," and on p. 58 learn that "inspiration is the result of an underhand process." What M. Binet says is *d'un travail souterrain*.

EDWARD L. THORNDIKE

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Space and geometry in the light of physiological, psychological and physical inquiry—By Dr. ERNST MACH, Emeritus Professor in the University of Vienna. From the German by THOMAS J. MCCORMACK, Principal of the La Salle-Peru Township High School. Chicago: The Open Court Publishing Company, 1906. 148 p. \$1.00 net.

The development of mathematical thought in course of the last half-century is marked by several distinct tendencies, all of them powerful, none of them dominant. Of these I will mention two and will call them the logical movement and the biological movement respectively. The aim of the former is to detect and to enumerate all indefinable notions and undemonstrable propositions, to make of these all possible sets of compatibles, and then by pure processes of inference to deduce from each set the entire body of its content. By this movement, mathematics tends to become an ensemble of distinct related hypothetical-deductive theories, such as the Euclidian and non-Euclidian geometries, the various doctrines of hy-

perspaces, the divers forms and varieties of function theory, mechanics as represented by Kirchoff and his school, and hosts of other doctrines in their infancy or yet unborn. The effect of this movement has been to detach mathematics from experience, from objects of perception, from the sensuous world, and to identify it as an activity with that of modern logic as wrought out by the genius of such as C. S. Peirce, Schroeder, and especially Peano. As exemplified in an elementary way, the movement culminates in such works as that of Hilbert on *The fundamental principles of geometry*, wherein points, lines, and planes are nothing but names for undefined entities (replaceable by any others) satisfying a set of compatible postulates and in which no appeal is allowed to the spatial intuition of the natural man.

The second movement, the biological, tho it seeks to attach or to re-attach or to attach more closely mathematical thought to reality, is not strictly a reaction against the logical movement. The two movements have been simultaneous, and, while the actors have sometimes quarreled, their activities have been mutually helpful and complementary. The leading spokesman for the biological movement in mathematics is the author of the book in hand, whose *Popular scientific lectures* and *Science of mechanics* have rendered his name familiar in every enlightened circle of thinkers whether scientific or philosophic.

This new work of Mach's is an exceedingly valuable contribution, and ought to be read and pondered not only by every teacher of mathematics but by every educated parent of young ones. Physiological space as distinguished from geometrical, the space of touch, the space of vision, that of audition, the resemblances, correspondences, and differences of these varieties, their biological functions, the feelings of motions and velocities—such are some of the themes. The reader is struck and stimulated by the unexpected evidences of the literal evolution of pure geometric space and thought out of pre-conceptual and pre-logical elements of physiological and anatomical experience. Here, too, the professional philosopher will find nourishment. In particular, he will find motive for a re-examination of the Kantian doctrine regarding space and time.

And the ethereal mathematician will here gain a wholesome sense of the fact that the purest offspring of his thought may trace a legitimate genealogy back and down to the commonest physical and physiological parentage. The stream of the author's thought has been produced by the dashing together of the waters of many related sciences.

The translation, as one knowing the former work of Mr. McCormack should expect, is well-nigh perfect; and the Open Court Publishing Company is again to be congratulated on its excellent judgment and its generosity in the service of science.

CASSIUS J. KEYSER

COLUMBIA UNIVERSITY

Elements of political science—By STEPHEN LEACOCK. Boston and New York : Houghton, Mifflin & Co, 1906. ix+417 p. \$1.75 net.

Professor Leacock, in his recent book on the *Elements of political science*, has undertaken no slight task in attempting to bring within the compass of four hundred pages a review of the leading doctrines of his subject as well as a survey of the chief principles of administrative and constitutional law now accepted in western civilization. He has added to the difficulties of his work by refusing to confine his attention to the mere legal or juridical aspects of the state. He doubtless would agree with Professor Seeley that all history is but the raw material of political science and evidently holds that it is the function of that science to reckon with all those individual and social forces which express themselves in public law. He even goes further and brings within his purview those movements at present purely voluntary which are making for the modification and reconstruction of existing political societies.

Professor Leacock devotes about one-third of his book to the historical and theoretical aspects of the state. He gives a hundred pages to the structure of government, national, local, colonial, and party. In some fifty pages he disposes of the province of government suggesting the problems of individualism and socialism and the attempts at their reconciliation in the modern state.

The theoretical part of his work is the least successful owing to the failure to adhere to a uniform terminology. Professor Leacock says (p. 4) that political science "deals with government." This he recognizes as inadequate. He then says (p. 12): "Political Science deals with the state." He makes (p. 16) distinctions between state, society, government, nation. He says (p. 53): "The state is an organized community"; and he rejects (p. 77) Professor Burgess's distinction between state and government. This apparent identification of the state with political society is neither historically nor practically true; it also leads to that old confusion which it was to be hoped Professor Burgess had cleared up definitely. Professor Leacock does not make at all plain the grounds of his refusal to maintain as rigidly as possible the distinctions between state, society, government, nation, which, however they may be criticised, are of great scientific value.

The neglect of these distinctions makes impossible any clear account of the origin of the state, as is evidenced in his discussion of the theories of Mr. Jenks and the Marxian socialists. The isolated quotation (p. 48) which he makes from Mr. Jenks does not contain the kernel of that brilliant thinker's theory. Mr. Jenks does not maintain, as Professor Leacock claims, "that the type assumed by modern political communities is to be ascribed entirely to the exigencies of their military life"—a statement which, when closely analyzed, does not reveal much of a definite nature. Mr. Jenks, however, is very definite. The clear-cut theory he advances (p. 73) is that the modern state originated in the conquest of primitive settled communities by a war band and the regimentation of the conquered by the victorious class. This theory is not at all in conflict with that held by the Marxian socialists, but is on the contrary identical with their theory and also with that of Professor Burgess. The fundamental cause of this conquest was not merely the love of fighting, but the desire for booty and the exploitation of the subjected population.

The theoretical discussion in Professor Leacock's book is followed by a useful comparative statement of the organization of governments in western civilization, special stress being laid

upon the institutions of England and the United States. This part of the work is no mere compilation. Indeed, the author has shown skill, in marshaling what are usually deemed dry facts, and critical faculty in estimating their values. The book is evidently not a patchwork, but the result of wide reading and mature deliberation.

A few slips may be caught by the way, altho in general Professor Leacock is accurate. The origin of representative government (p. 219) is traced to the representation of the village in the shire moot of Anglo-Saxon times; tho there are eminent authorities in support of this theory, only one of them—Dr. Stubbs—has attempted to prove it and an examination of the evidence he gives (*Constitutional history*, Vol. I, 6th edition, p. 128) shows how inadequate the foundation is. Parliamentary or responsible government was not introduced into Cape Colony in 1853; the constitutional ordinance went into effect on that date but parliamentary government was not provided until 1872. It is misleading to say (p. 285) that Madagascar was "seized by France in 1895," as this ignores the long historical relations of France with that island. The Social Democratic Federation was founded in 1883, not in 1881. The estimate of the socialist vote in the United States in 1904 at "some 600,000" is beyond the mark, the vote being only 442,000 according to the most authoritative sources. The senatorial system of the United States allotting two representatives to each state can hardly be said to have solved the problem of an Upper House (p. 267); it seems scarcely tolerable that the state of Nevada, with a population of 43,000, including a number of Indians and Chinese, should have the same weight in the Senate as the state of New York with its population of over 7,000,000. Is there not danger of reading modern ideas into ancient institutions in regarding the Anglo-Saxon kingship as in any way elective (p. 188)? Is there any practical value to be derived from the use of such phrases as "the abstract law of political justice" (p. 225)?

CHARLES A. BEARD

COLUMBIA UNIVERSITY

Manual of physical geography—By C. T. WRIGHT. Boston : Ginn & Co., 1906. xii+178 p. \$1.00.

This work, by a practical teacher, is a contribution to a field which is, as yet, far from being overcrowded. Altho books of a similar nature have come rather frequently to the reviewer's table of late, too many teachers still fail to appreciate their value.

The book is divided into two distinct parts. The first portion consists of a list of library references covering the principal topics treated in a course in physical geography, while the second contains directions for laboratory and field work.

The library references are well chosen. They are selected from authoritative sources for the most part, they are adapted to the understanding of the pupils, and they are so pertinent to the subject under investigation that a definite return for the time spent in the library may rationally be expected. Their arrangement, too, is good, for the references, whether to chapters or to portions of chapters, are grouped according to the subjects which they discuss.

This portion of the book is really valuable, for references so selected and arranged will be used and will eventually result in a breadth of view and an understanding of the subject which the most conscientious study of the text-book could never give.

The field and laboratory exercises number seventy and are divided as follows:—

The Earth as a Globe	8
“ Atmosphere	19
“ Lands	38
(Including rocks and minerals.)	
“ Ocean	5

As some subjects lend themselves best to one mode of treatment and others to another, the author has naturally made no attempt to give equal emphasis to all, in the laboratory. He has, moreover, laid special stress on the lands and the atmosphere, evidently agreeing with the general opinion that these departments of geography are the most important for treatment in the high school, offering, as they

do, a varied and an almost limitless field for the study of inorganic causes and organic responses.

In some instances, however, the author has gone beyond the limits of the subject, treating topics that should properly be considered in physics, in geology, and in other sciences. Certainly much of the work on minerals and rocks could advantageously be omitted, and some phase of geography, the study of the earth in its relation to life, substituted. While facts that perhaps belong primarily to other sciences are admitted to geography, they are properly so admitted only when the point of view, or the use which they subserve, makes them truly geographic. The time has past for geography to open its door to all phases of earth study "which must be taught somewhere."

The individual exercises give evidence of careful work on the part of the author. The directions are full and sufficiently definite that pupils using the book may be thrown largely upon their own resources, thus developing an independence of thought much to be desired. The problems are based on maps, profiles, photographs, and simple pieces of apparatus. All of this equipment it is possible either to make or to obtain at a slight expenditure of money.

Blank pages in abundance, cross-section paper, and outline maps of the United States furnish a complete note-book in which a record of the work may be kept.

While the laboratory and field exercises are not strikingly individual, in that no new trails are blazed, the manual on the whole is a good one and will recommend itself to teachers and pupils alike for its many strong qualities.

CLARA B. KIRCHWEY

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Collection of eighteenth century verse is the title of a compilation by Miss Margaret Lynn of the University of Kansas. We are glad to see included Macpherson's *Carthou* and some Scotch songs and ballads. (New York: The Macmillan Company, 1907. 484 p. \$1.10.)

The healthy-minded young men of America, those who are free alike from the canting hypocrisy of the Pharisee and the hypocritical cant of the demagog, can have no better or saner guide in matters political and economic than Dr. Albert Shaw. His new book of five chapters, entitled *The outlook for the average man*, is inspiring reading. Its well-reasoned optimism is founded on wide knowledge and sincere human sympathy. Its analysis of present conditions, and its interpretation of them, are well-nigh authoritative. (New York: The Macmillan Co., 1907. 240 p. \$1.00.)

In the attractive series known as Merrill's English Texts, the newest volume is a *Selection of Emerson's essays*. The introduction and notes are appropriate and not too obtrusive, and the selection of essays is carefully made. (New York: Charles E. Merrill Company, 1907. 336 p. 40 cents.)

An extraordinary collection of linguistic material requiring the critical examination of an expert comparative philologist is contained in the book called *Discoveries in Hebrew, Gaelic, Gothic, Anglo-Saxon, Latin, Basque, and other Caucasian languages*, showing fundamental kinship of the Aryan tongues and of Basque with the Semitic tongues. The author is Allison E. Drake. (Denver: Herrick Book Company, 1907. vi + 402 p. \$6.30.)

A very careful and painstaking examination of a movement which, for good or ill, has had and is having wide influence in America, is found in the Rev. Lyman P. Powell's *Christian science, its faith and its founder*. (New York: G. P. Putnam's Sons, 1907. 261 p. \$1.75.)

An agreeable and useful edition of *Some selections from Chaucer* is that by Professor Greenlaw of Adelphi College. In addition to a comprehensive introduction, the book contains the text of the Prologue, the Knight's tale, the Monk's tale (selections), the Nun's Priest's tale, the Pardoner's tale (condensed), and some selections from Chaucer's lyrics. (Chicago: Scott, Foresman & Co., 1907. 366 p. 40 cents.)

A very excellent reading book for the beginner in Spanish is Schilling's *Don Basilio*, edited by Frederick Zagel. (New York: Henry Holt & Company, 1907. 156 p. \$1.00.)

Not a few readers of contemporary German history and literature will be very glad to see the attractive little edition of *Die beiden Freunde* by Dr. Jessen of Bryn Mawr College. (New York: Henry Holt & Company, 1907. 140 p. 35 cents.)

For the assistance of those school and college societies that give from time to time various dramatic performances, the Misses McFadden and Davis have prepared a list of plays with descriptive notes that will be found very useful. (Cincinnati: E. A. McFadden, 1908. 96 p.)

The late Jeremiah Curtin was one of the most scholarly men in America, and an extraordinary array of brilliant writings which he left behind is a most substantial and enduring monument. Posthumously there appears from his pen with a foreword by President Roosevelt a comprehensive and authoritative work entitled *The Mongols* which will be eagerly read, particularly at the present time, as a contribution of first importance to the literature which aids us to comprehend, if not to understand, the Orient. (Boston: Little, Brown & Co., 1907. 426 p. \$3.00.)

A sample of thoroughgoing sociological work now in progress is found in the first volume of *The negro races* by Jerome Dowd. This volume, which is but the first of several, is a contribution to the study of mankind from the standpoint of race rather than from the evolution of social institutions. It is in high degree valuable. (New York: The Macmillan Company, 1907. 493 p. \$2.50.)

A thoroly good piece of text-book making is *Introduction to higher education*, by Professor Bôcher of Harvard, with the coöperation of Mr. Duval of the University of Wisconsin. (New York: The Macmillan Company, 1907. 321 p. \$1.90 net.)

X

NOTES AND NEWS

Standards of scholarship

Mr. Owen Wister, the novelist, in an address delivered at Harvard University on December 18, which has been widely misquoted in the daily and weekly press, offered some observations on scholars and scholarship that are trite and true, and some that are very wide of the mark. To say that scholarship is undervalued and underrated in America and by Americans is, of course, true. It is one of our proudest national boasts. Other countries need scholarship, erudition, but America offers in their stead rough-and-ready brawn, forcefulness, and what by a curious perversion of language is called "character"! Mr. Wister might well pour out the vials of his scorn and wrath on such a compound of ignorance and Philistinism as this.

But to say that America has no scholar "to whose feet the students of the whole world come as the supreme authority in his chosen subject," and that other countries have such scholars, is quite untrue. Mr. Wister instances the late Lord Kelvin, *facile princeps* in his calling; but how many French, German, or Italian students ever went to him at Glasgow when he taught there? Practically none! But if the presence of foreign students in their classrooms be made the test of great scholars, then the American universities probably lead the world.

The fact is that scientific reputation and the ability to attract foreign students have but very slight relation to each other. Mr. Wister's list of examples shows plainly that he has confused these two points of view. He excludes some of the most distinguished scholars, foreign as well as American, and includes some names with no claim whatever to scholar-

ship of any exceptional sort. The final judgment of one's contemporaries in the same field of endeavor is the test of exceptional scholarship. The ability to attract students from all parts of the world is something quite different, and into its composition exceptional scholarship enters as but one of several important elements.

As a matter of fact, America today possesses a far larger number of scholars of distinction than Mr. Wister suspects. Europe recognizes this fact and gladly acknowledges it.

Teachers' salaries in New York The annual report of City Superintendent Maxwell of New York contains a discussion of the subject of teachers' salaries which is of much more than local interest. Mr. Maxwell says:

The year 1906-1907 will be memorable for an agitation carried on by the women teachers in elementary schools and high schools to secure legislation making it mandatory upon the Board of Education to pay the same salaries to women that are paid to men.

For a full understanding of the facts and conditions out of which this agitation arose it is necessary to state briefly the history of teachers' salaries in this city since consolidation. When consolidation took place in 1898, three city school systems, nearly a score of village school systems, and nearly one hundred rural school districts were brought together into one system. There was a different method of paying the teachers found in each of the component parts of the school system. The method of raising money for the support of schools, under the new Charter, was such that the distribution of the fund for the payment of teachers' salaries among the various local organizations resulted, as many of them believed, in great injustice. We struggled along, however, for three or four years under very great financial difficulties, which caused serious injury to the school system and kept up constant irritation and agitation among the teaching force. These difficulties reached their culmination in the school year 1899-1900, when, for months, no salaries were paid to teachers in the boroughs of Queens and Richmond, when the salaries of many teachers were arbitrarily reduced in order that the salaries of other teachers, specially favored in a legislative enactment known as the Ahearn law, should be increased. So great was the

unrest and so impossible did it seem to overcome the difficulties occasioned by the smallness of the appropriation and the rivalries of borough school boards, that a comprehensive measure was introduced into the Legislature by Senator Davis to regulate the entire subject of teachers' salaries in this city. Senator Davis's bill provided that a tax of four mills on each dollar of assessed valuation of real and personal property in the city should be levied for the purposes of the General School Fund from which teachers' salaries are paid, and that certain minimum salaries should be fixt for the several classes of teacher. Unfortunately, the schedules of salaries provided by the Davis law were drawn up by a legislative committee after conference only with representatives of different teachers' organizations, and without reference to an harmonious underlying scheme or plan. The result is that the salary scheme contains many incongruities and inequalities. While the salary schedules provided for minimum uniform salaries for each grade of teacher thruout the city, they were modeled chiefly upon the schedules that had prevailed in the old city of New York, and thus were made to provide considerably higher salaries for men teachers than for women teachers. For women teachers in elementary schools the schedules provided for one grade of salary for teachers teaching in any grade from the kindergarten to the 6B grade, inclusive; a little higher salary for those teaching grades of 7A, 7B, and 8A; and a still higher salary for those teaching the 8B grade or graduating class. For men teachers, the bill provided two salary schedules for elementary schools: one for teachers of any grade below 8B; the other, a higher salary, for teachers of the 8B grade or graduating class. In the case of principals of elementary schools, a difference of \$1,000 a year was made between the salary of a woman principal and the salary of a man principal. In the same way, salary schedules were provided for women and for men in high schools.

While it must be admitted by any one who has closely studied the subject that the Davis law is ambiguous in some of its provisions, and that it is unjust to women in many respects, it may also be successfully maintained that it put an end to an almost intolerable condition with regard to teachers' salaries. Certain it is that from 1900 up to 1907 we enjoyed almost complete freedom from agitation for change or increase of salaries. Under these circumstances I can not but regard the Davis law as having been of very great advantage to the schools. I sincerely trust that it will be maintained on the

statute book as a defense against capricious changes in teachers' salaries, until something better is provided.

It was almost inevitable, however, that sooner or later the women teachers would revolt against the discrimination in salary made against them by this law, and in favor of men. After much discussion between them and members of the Legislature, a bill was finally agreed upon and introduced by Senator White, of Syracuse, the most important provisions of which were: First, that the educational tax of four mills established in the Davis law, which had afterwards been reduced to three mills, should be restored; second, that the principle of "equal pay for equal work" should be established by law; and, third, that any officer or teacher who exercises supervisory duties over other teachers must receive a salary higher than any teacher supervised.

This bill was past by both houses of the Legislature, was vetoed by Mayor McClellan, was then repast by the Legislature over the Mayor's veto, and was finally vetoed by Governor Hughes.

Now that this agitation is over for the present, it is profitable to consider briefly the main provisions of the proposed legislation and some fundamental principles which ought to be carefully taken into account in any revision of the law governing teachers' salaries. The most important provision of the proposed law was that requiring "equal pay for equal work." In support of this provision the argument made is that women frequently teach quite as well as men teach, and that some women teach a great deal better than some men teach—a statement which is undoubtedly true; and, second, that salary should attach to a position and should not depend upon the sex of the incumbent. These arguments containing, as they do, a considerable amount of truth, are very plausible and have won the support of many persons in the Legislature and thruout the community in support of the principle of "equal pay for equal work." It must be pointed out, however, that arguments such as these proceed solely from the teacher's point of view. They do not take into consideration either the ability of the taxpayer to pay increased salaries or the interests of the children in the schools. If there is to be "equal pay for equal work" it can come about in only one of two ways: either men's salaries must be reduced to the rate of salary paid to women, or women's salaries must be raised to the rate

of salary paid to men. In the former case—a reduction of men's salaries—it is perfectly clear that we shall not be able in future to get strong men to enter the teaching profession in this city, and that the strong men who are now employed in the schools will leave and seek more remunerative employment. Under such conditions only the weaklings among men would remain. If, on the other hand, the second alternative is taken and women's salaries are raised to the rate of salaries paid to men, the expense to the city will be enormous. According to calculations made by Auditor Cook, had Senator White's bill past, the increased cost of teachers' salaries would have been between eight and nine million dollars for the present year. Owing to the recent disturbances in financial circles, it is now quite clear that the burden thus laid upon the taxpayers would have been greater than they could bear. It must also be perfectly clear that even if this financial disturbance had not occurred, so great an increase in the immediate cost of schools would prevent that extension of the school system every year which is necessary to meet the demands of an increasing population. It is difficult even at present rates of expenditure to secure sufficient funds to erect the additional buildings and to pay the additional teachers needed to provide for an annual increase in the school population of twenty-five thousand children. If, then, equalization of salaries can not be attained by raising women's salaries to an equality with men's salaries because of the enormous expense involved—an expense which would oppress the taxpayers and eventually cripple the system; and if equalization by reducing men's salaries to the rates paid to women would result in driving men teachers out of the system, the inquiry at once arises: What advantage is there in retaining men as class teachers in elementary schools?

In discussing this question, which is really a question of the relative merits of men and of women as teachers, I feel bound to say that it can not be decided by any of the ordinary examination tests applied to determine the results of teaching. If the same examinations were given to twenty classes taught by twenty women teachers of average ability, and to twenty classes taught by twenty men teachers of average ability, in such a subject as arithmetic, or grammar, or geography, I am confident from my observation in the schools that the results in the women's classes would be quite as good as the results in the men's classes. The question, if determined at all, must be determined by considerations other than examination tests.

It will be admitted, I presume, that the prime object of education is not so much the imparting of knowledge as the development of character. If this proposition is conceded, the question arises, is the influence of men teachers thru example and natural characteristics on the development of character the same as the influence of women teachers, or is it something different? This question again must be determined in the light of the general intellectual and emotional characteristics of men and of women. That the intellectual and emotional characteristics of men and of women are different is held by practically all students of psychology and sociology. What these differences are has been carefully examined and set forth by Mr. Herbert Spencer in his *Study of sociology*. The following passage contains his general conclusions:

Admitting such to be changes which the future will probably see wrought out, we have meanwhile to bear in mind these traits of intellect and feeling which distinguish women, and to take note of them as factors in social phenomena—much more important factors than we commonly suppose. Considering them in the above order, we may note, first, that the love of the helpless, which in her maternal capacity woman displays in a more special form than man, inevitably affects all her thoughts and sentiments; and this being joined in her with a less-developed sentiment of abstract justice, she responds more readily when appeals to pity are made than when appeals are made to equity. . . .

The maternal instinct delights in yielding benefits apart from deserts, and being partially excited by whatever shows a feebleness that appeals for help (supposing antagonism has not been aroused) carries into social action this preference of generosity to justice, even more than men do. A further tendency having the same general direction, results from the aptitude which the feminine intellect has to dwell on the concrete and proximate rather than on the abstract and remote. The representative faculty in women deals quickly and clearly with the personal, the special, and the immediate; but less readily grasps the general and the impersonal. A vivid imagination of simple direct consequences mostly shuts out from her mind the imagination of consequences that are complex and indirect. The respective behaviors of mothers and fathers to children sufficiently exemplify this difference, mothers thinking chiefly of present effects on the conduct of children, and regarding less the distant effects on their characters; while fathers often repress the promptings of their sympathies with a view to ultimate benefits. And this difference between their ways of estimating consequences, affecting their judgments on social affairs as on domestic affairs, makes women err still more than men do in seeking what seems an immediate public good without thought of distant public evils. Once more, we have in women the predominant awe of power and authority, swaying their ideas and sentiments about all institutions. This tends towards the strengthening of governments, political and ecclesiastical. Faith in whatever presents itself with imposing accompaniments, is, for the reason above assigned, especially strong in women. Doubt, or criticism, or calling-in-question of things that are established, is rare among them. Hence in public affairs their influence goes towards the maintenance of controlling agencies, and does not resist the extension of such agencies; rather, in pursuit of immediate promised benefits, it urges on that extension; since the concrete good in view excludes from their thoughts the remote evils of multiplied restraints. Reverencing power more than men do, women, by implication, respect freedom less—freedom, that is, not of the nominal

kind, but of that real kind which consists in the ability of each to carry on his own life without hindrance from others, so long as he does not hinder them.

If Mr. Spencer's conclusions are just: if women respond more readily to appeals to pity and men to appeals to equity; if women are guided more by generosity and men by justice; if women's minds dwell more on what is concrete and proximate, and men's on what is abstract and remote; if women see more clearly the simple, direct consequences of an act, while men are prone to consider the complex and indirect consequences; if women realize public good that is immediate and men more clearly realize public ends that are remote; if women stand more in awe of power and authority while men are given to criticism; if women reverence power while men respect freedom; it follows that children, girls as well as boys, should in their school work, come under the influence of the mind of the man as well as of the mind of the woman. It is of the highest importance that each successive generation of men should, without losing the natural or acquired tendency to equity and justice, acquire more of the distinctively womanly characteristics of pity and generosity; and that women, without losing their insight into what is immediately beneficial and their reverence for power and authority, should acquire more of the distinctively manly characteristics of respect for freedom and insight into what is complex and remote. From the standpoint, therefore, of the development of character in the pupil thru that most powerful of all forces, imitation, it is necessary to have both men teachers and women teachers in the schools.

No better illustration of the effect of men's influence on boys' minds thru imitation need be given than the activities conducted under the direction of the Public Schools Athletic League, in which tens of thousands of boys are daily practising athletic sports under the leadership of a few hundred men teachers. This result, beneficial from the moral and intellectual as well as the physical point of view, would, if only women teachers had been employed to teach boys, have been impossible.

But this is not all. While the psychological argument derived from the characteristics of men and of women as set forth by Mr. Spencer is very strongly in favor of having men teachers in the schools, there is a social argument which is perhaps even stronger. A very large proportion of the children in our schools come from homes in which there is but

little culture; in many of which the English language is rarely spoken, and spoken poorly; in many of which the husband and father is merely a bread-winner when he is not also a domestic tyrant. In such homes both boys and girls see little of the father and come to think of him in their daily life as one whose sole duty it is to toil, while he pays little, if any, attention to the graces and refinements of life. If, when they go to the public school, they find only women as teachers, the impression made upon their minds is sure to be that culture and refinement are for women alone and not at all for men. Such an impression could have only a prejudicial effect, particularly upon the minds of boys. Insensibly but inevitably they would come to regard culture and refinement as things good enough perhaps for women folk, but unworthy of men whom they conceive of as the toilers, the fighters, and the voters. If, however, they find in the public schools men teachers who, while possessing the characteristics of men of the world, have also acquired culture and refinement, boys naturally reach the conclusion that culture and refinement are worth while for men as well as for women. From this broad social point of view, therefore, it is certainly for the interest of the community and for the intellectual and moral elevation of the race that we should have men teachers in the schools as well as women teachers. Experience has doubtless shown that women teachers teach younger pupils, boys as well as girls, better than men. At that age, however, at which boys begin to extend their intellectual horizon beyond the circle of childish amusements, it is preëminently necessary that they should have an opportunity of acquiring thru imitation the characteristics of men as well as the characteristics of women, of following the example of men of character as well as the example of women, and of seeing in men as well as in women illustrations of culture and refinement.

If the conclusion of the last paragraph, that the employment of men in the schools is necessary, be valid, it follows that the educational authorities must pay salaries to men sufficient to obtain the requisite supply of men teachers of ability and culture. If, however, it is not necessary to pay the same salaries in order to obtain a sufficient supply of women teachers of refinement and culture, it is difficult to see what reason can be advanced for increasing the educational expenses to the extent involved in equalizing the salaries of women teachers with those at present paid to men.

For the sake of clearness the argument may be stated in a series of propositions:

1. The majority of the class teachers in the public schools are women, for two reasons: (a) for the younger children who constitute the larger number in the schools, women make the better teachers; (b) the services of women teachers may be obtained more cheaply than those of men.

2. Some men teachers are and should be employed in the higher grades for three principal reasons: (a) that the pupils may come under the influence of the intellectual and moral qualities that particularly characterize men, as well as under the influence of the intellectual and moral qualities that particularly characterize women; (b) that the pupils may be made to feel that culture and refinement are not the peculiar province of women, but should also be striven for and possessed by men; (c) that the larger boys may have guidance and leadership in athletic sports.

3. In order to obtain the services of even a small number of men, it has been found necessary to pay considerably higher salaries than those paid to women.

4. Neither by any received economic theory nor by the analogy of any practise in any other walk of life, can it be regarded as sound policy to determine the salaries of the great majority (women) of the teaching force by the salaries paid to a comparatively few (men) who are employed, not because on the average they teach the ordinary school branches better than women do, but for special purposes.

If, then, the salaries which it is found necessary to pay in order to obtain the services of a few men, are not to form the basis for the salaries of the majority of the teaching force who are women, what principles should determine teachers' salaries?

These principles seem to me to be two:

1. A teacher's salary should constitute a living wage. In the case of a teacher a living wage ought to be understood to mean a salary sufficient to enable the teacher to live in respectable society and to take advantage of reasonable means of culture and recreation.

2. The salary should be such as to attract to the public schools of New York the best teaching talent in the country.

EDUCATIONAL REVIEW

MARCH, 1908

I

DISILLUSIONED: ANOTHER VIEW

Smith was shown Brown's interview concerning the Brick-town schools published in the October, 1907, *EDUCATIONAL REVIEW* under the caption of "Disillusioned." A few days later, Smith was called up and asked what he thought of Brown's criticisms. To this inquiry Smith replied "I am amazed that a man of Brown's experience, who has taken years to acquaint himself with the details of his own business, whose only experience with the schools is his one term as trustee, should presume to revise the course of study affecting the welfare of hundreds of children upon the meager data gathered from 'a long morning' in which he 'visited all classes' of a school system even tho his knowledge be supplemented by that gained from 'other visits' of probably equal superficiality, thus subjecting himself to the very criticism which he makes against the schools. Evidently, he has not read "The people and the schools," in the May, 1901, *EDUCATIONAL REVIEW*.

"It has been the custom of myself and wife to visit our Brick-town schools several times each year since our children began to attend. We have followed them thru the kindergarten, the grades, and the high school. We make it a point to cultivate the acquaintance of the teachers of our children, and we have always found them as a rule cultivated, earnest, and conscientious people ready to listen to suggestions, appreciative of the interest we have shown. If parents would show the same inter-

est in the training of their children that they exhibit in the training of their cattle and become acquainted with the actual conditions and working of our schools, they would find that many of the supposed evils do not exist and would be in a position to intelligently assist in remedying those admittedly there.

"Each year a dozen or more of our high school graduates enter college upon their diplomas, while others who are not graduates are passing college entrance examinations. How is this possible if the schools are not doing good honest work? This question takes on added weight when we reflect that college entrance requirements have been raised twenty-five per cent.¹ in as many years. When Brown and I finished the course offered by our Bricktown school less than 'fifty years ago,' we were unable to pass college entrance examinations until we had spent a full year with a tutor making special preparation for those examinations, notwithstanding that the colleges then were 'mainly institutions of secondary education.'² Now our graduates, with only the training which every pupil may have, pass the more difficult examinations in ever increasing numbers. Have the colleges fallen below the standard of 'fifty years ago' also? Brown's authority for the degeneracy of the schools says that the colleges have 'broadened, improved, etc.' *Reductio ad absurdum*. If the schools were what they were 'fifty years ago,' no one would patronize them.

"Now just a word about the complaint of the colleges that our graduates are not well trained. Assuming that this is true, where rests the responsibility? Colleges are the sole arbiters of all matters pertaining to entrance. If the standards are yet so low as to permit the entrance of poorly trained candidates, why aren't the standards put still higher? Each time they have been raised in the past, the changed conditions have been promptly met by the schools in ever increasing numbers. The attendance upon colleges, universities, and technical schools

¹ P. 48, Proceedings Association of Colleges and Preparatory Schools of the Middle States and Maryland for 1906; also p. 27, *School review*, January, 1908.

² P. 211, Vol. I, *Education in the United States*.

in 1889-90 was 55,687; in 1905-06 it was 135,834, an increase of 143 per cent. notwithstanding the increased requirements.

"Not only have colleges increased the amount in the subjects themselves, but they have multiplied the number of subjects which may be offered (or required) for entrance, until high school programs have become overloaded, the expense for maintenance materially increased, with results which are neither satisfactory to the schools or the colleges. The authority which sets the examination, establishes the standard and shoulders the responsibility.

"Our schools are now in the hands of teachers trained by the colleges and the professional schools, and the textbooks used are to a considerable degree written by the professors in these higher institutions. If these conditions do not bring about the results which the colleges want, the remedy would seem easy. At a recent educational meeting a distinguished college professor of English who undoubtedly acquired ninety-five per cent. of his knowledge since he left the secondary school, a fact which he had quite forgotten, stated that the work in English in our Bricktown schools was very bad indeed. Our superintendent was present, and in response to the request for an explanation, replied somewhat as follows: If we consider that all the English training which a pupil who does or does not go to college is likely to get must be had in our high schools, which under the college elective (better *Laissez-faire*) system are fast becoming the only schools of liberal culture left, our results are not satisfactory. This has given us great concern, and to the solution of the difficulty we have devoted much time. But the only results thus far reached indicate that the root of the difficulty rests in the facts that the professor making the criticism prescribed the course in English, the teachers in charge are the 'certified' graduates of his own college, and the textbooks used by the pupils were written by the professor himself. Brown may term this 'a short spiral,' but the audience seemed to think the debate closed.

"Brown objects to thirty-minute recitations and to the theory upon which they are based. He asserts that the theory is denied by employers of no older boys who keep them at work

eight hours per day. It is true that the business day is longer than a boy's school day, but the inference that single business transactions average more than thirty minutes is not true. In most forms of business the transactions of a day are extremely varied and it will not take Brown even 'a long morning' to discover that they are. Prove this by observing the clerks in any business house for an hour.

"Colleges place the length of a class period at one hour. Taking this as the proper length for college men, does it not seem that forty-five minutes are sufficient for a class recitation for high school boys, four years their junior, and thirty minutes long enough for children in the grades still another four years younger? At any rate, it is three times as long as the recitation period of 'fifty years ago.'³

"I have always understood that the power of sustained attention and concentration awaited upon years. I have noticed that children at play of themselves frequently change from one toy or sport to another, their minds failing to respond to certain stimuli, excepting for short intervals. This characteristic is not peculiar to the child-mind entirely and explains why some really intelligent people sleep at lectures.

"School programs are built upon this principle. In the lower grades there are many subjects and the child is not held unduly to the consideration of any one of them. This by no means implies superficiality of treatment, but rather the recognition of the impossibility of putting a quart into a pint cup without injustice to the cup. As the child advances in grade the number of subjects decreases and the time each subject is considered increases, until we find the man giving his whole attention to the consideration of a phase of a single subject.

"People usually find what they are looking for. Some people are so interested in looking for and talking about the faults of others that they have no time to devote to introspection. A Philosopher who lived about two thousand years ago had this class in mind when he referred to the mote and beam story. One man dwelt so long upon the 'mistakes of Moses'

³ P. 84, Vol. I, *Education in the United States*.

that he utterly failed to discover one of the most colossal and influential characters in human history. I have always felt kindly toward the teacher shut up for five hours daily with forty-five children representing all grades of social development and personal cleanliness in the home; teachers who must take the 'Ethels' and the worse Tommys who have been reared up to the school age by servant girls or have grown up on the street while their parents delved for the privilege of eking out a miserable existence or discuss the failure of the schools at clubs or over pink tea. The schools are by no means perfect. But how about the homes from which the children come? Are they? Curfew ordinances and compulsory education laws are the monuments erected to parental neglect in nearly every state and territory of the Union.

"But let Dr. Harris⁴ give us a glimpse into those schools of 'fifty years ago.' He says substantially as follows: Up to about the middle of the nineteenth century, only about one-twelfth of our population was urban. The schools of that time were largely the ungraded school of the country in charge of a single teacher, who conducted from twenty to forty separate recitations daily from five to ten minutes each. A recitation consisted in examining a pupil upon the memorization of the words of the textbook, or in verifying the answers he had obtained in the solution of his problems with those in a printed key. Naturally bright pupils accomplished a fair amount of work if they happened to have good textbooks, but the rank and file learned a little reading, writing, and arithmetic from the same books for several winters, beginning at the first page on the first day of school each year. In a properly graded school today, a teacher has but two classes as a rule, one of which she hears recite while the other prepares a new lesson. The pupils are of nearly the same degree of progress in their studies, and in a recitation of thirty minutes, time is afforded to discuss the meaning of the text in which the pupils take part in their own language.

"The average child now learns to read in the time required to master his 'a, b, abs' 'fifty years ago.' The single

⁴ P. 84, Vol. I, *Education in the United States*.

book course in reading has given place to several better books for basal study. In addition, a course in supplementary reading has been laid out which acquaints children with the classic myths, fairy tales, fables, folklore, wonder stories, hero tales, biography, history, and literature. Besides this course in supplementary reading to be done in class, courses for home reading suited to the intermediate and grammar grades have been planned and the books made accessible for all children alike. When one contemplates that children will read and the influence of a book, this cultivation of the taste for good reading and the establishment of the habit of reading on the part of the schools are pearls of great price.

"Geography is no longer the finger on the map and the finger-on-the-map question kind of 'fifty years ago.' I recently visited our seventh grade in Bricktown and heard a lesson upon 'Why is one country or state a manufacturing country or state while others are agricultural?' It was a highly instructive recitation in which every pupil in the class took intelligent part. Miss Thornton told me that topics like cotton and cattle-raising, mining, lumbering, shipbuilding, canals, railroads, inventions, commerce, etc., constituted regular work once each week in which current events formed an important part, and that once each month she illustrated the work by the stereopticon, taking children in these illustrated lessons around the world. The remaining four days per week, she said, was ample time for the study of the political, physical, and mathematical geography which, I observed, was minus the atlas-gazetteer features that constituted the whole thing 'fifty years ago.'

"Brown, like all others who have pointed to poor spelling, has utterly failed to show that it is an invention of the modern public school. And what is more he can't do it. He has apparently forgotten the spelling match⁵ held between Bricktown's two churches last winter. The contestants included the pastors of both churches, our local editor, three proofreaders, three college professors, and the remainder of the twenty-four were made up from the representative business men of the town,

⁵ This incident occurred in one of the towns of New York.

not one of whom had been in school within the past twenty years or more. Miss Thornton pronounced the words used in her seventh grade. The result was that every man of the twenty-four was retired twice within just one hour. Here was a real test of the efficiency of present-day methods with those of 'fifty years ago' or less. I haven't the slightest doubt but that our experience can be repeated in every town of this size in the country. It is unreasonable for the public to expect that the schools teach to children of thirteen the spelling of the vocabulary of men of forty, or the spelling of the technical terms peculiar to the various professions. Spelling is a growth, as tested by one's own experience.

"But we are not entirely without data concerning the past with which to compare present results. This cry that the 'three R's' are neglected is by no means new. A few years ago the answer papers written in 1846 by the children of the first year of the Springfield (Mass.) high school were found together with the questions.⁶ These questions were again used in Springfield in 1905, and the basis of rating the answers was the same as in 1846. Later these questions were given elsewhere. Educators have never denied the importance of the 'three R's,' but have denied that they are being neglected. The following table gives the results of this real test of efficiency between the old and the new methods and courses of study:

City	Date	No. pupils	Per cent. correct in	
			Spelling	Arithmetic
Springfield	1846	85	40.6	29.4
Springfield	1905	245	51.2	65.5
Brooklyn	1905	94	—	71.27
Nashville	1905	371	57.3	72.9

"Brown seems to be troubled about that 'bright-faced boy of thirteen' who was studying Shelley's *Skylark*, and by his question raises a doubt as to whether language work, thru the medium of committing choice English classics, is desirable. This is the modern substitute for the 'rules of syntax,' and the dry-as-dust pages of Quackenbush's English grammar,

⁶ *Journal of education*, January 2, 1908.

which was formerly conned with about as much interest and profit as would result from committing a few pages of the dictionary. President Faunce, of Brown University, says that 'language and literature are largely matters of imitation and association.' This being so, the reading of choice prose and poetry and the committing of some of these to memory bring the child into this association with and imitation of the best users of the language. Aside from getting a vocabulary, reading and language in our public schools are inseparable.

"Then, too, that 'bright-faced boy of thirteen' will be in the high school next year studying Latin, algebra, history, or biology and English. How can he do this if he is unable to get profit from Shelley's *Skylark*? Of course he will not have the understanding of the *Skylark* at thirteen that he will have at twenty, neither will he have at twenty the same full meaning that he will get at forty, but he will have taken a step in the right direction.

"Music, drawing, kindergartens, domestic science, manual training, and commercial studies are not fads. Brown will find it hard work getting educators of standing to so state over their signatures. One of these studies is now given credit for entrance by several of the very largest universities of the country, and another is a regular study in a few, receiving university credit toward graduation. In this connection, the report of the Committee of Fifteen, the Elementary Syllabus issued by the Board of Regents for the schools of New York, the general attitude of the National Education Association, the report of the German Commission on our schools, among many other important documents, will form interesting reading.

"The introduction of these studies into the schools is simply a movement to suit the child's 'education to the requirement of the civilization into which he is born,' an approximation to Spencer's definition of education. Good citizenship demands that the vast majority who can never go beyond the high school, possibly not beyond the elementary school, should be trained along lines of self-support. The great question in education today is, what can be done for this great majority

to train them for the serious responsibilities of citizenship? And the answer comes in the list of subjects above mentioned, in evening schools, in commercial schools, in manual training schools, and in trade schools. We shall always train the boy who wants to go to college, but we are going to train the boy who can not or does not want to go.

“Concerning the historic or traditional methods which the schools have always followed until recently, Colonel Parker once forcibly summed up the situation thus: ‘We dwell on those who have been saved by our older methods, *but who has counted the lost?*’

“Professor Paul H. Hanus, of Harvard University, says that ‘in the division of labor education has been assigned to the schools. The public desires good schools, but does not know what good schools are. It is the teacher’s business to tell them and to tell them what good schools cost.’ Good schools mean good teachers at materially increased salaries, or they can not be had in competition with other forms of business that will pay. Good schools mean ample and substantial buildings, well equipped with furniture, apparatus, libraries, laboratories, sanitary plumbing, scientific heating and ventilating, possibly, as in many localities, free textbooks and supplies. These cost many times the equipment of ‘fifty years ago,’ when army accommodations sufficed. Another cause for increased expenditures is found in the increased attendance. In 1870 there were enrolled in our schools 7,561,582 different children. In 1905 the enrollment was 16,641,970, an increase of over 120 per cent. Thus attendance alone would warrant an increase of 120 per cent. were the schools on the 1870 basis in matters of salaries, equipment, etc., and of a much larger increase on the present basis. Dr. Charles De Garmo, of Cornell University, has called this ‘the period of material construction in education.’ Compulsory education laws have driven the children into the schools in such numbers that the problem of properly housing them is one of first importance.

“The burden of assimilating this heterogeneous mass, which includes thousands of foreign-born children, has fallen upon the elementary schools. As to whether they have been equal

to the situation or not, President Butler has this to say: 'No secondary school or college in America can show teaching to compare, in mastery of scientific method and in technical skill, with the best teaching to be seen in many of the best elementary schools;' a conclusion which is based upon more ample data than could be acquired by 'a long morning' in which 'all the classes' of a school system were visited.

"Brown is right in his statement that the schools are not perfect, but wrong in his inference that imperfection is a characteristic of the schools. He is right in his statement that the public is deeply interested in the schools, but wrong in his inference that this right is peculiar to the schools because the public pays the bills and furnishes the children. This is just what it does for banking, the church, all forms of business, government, and the professions. No, the schools are not above criticism. Neither is civilization itself, which permits men to starve who wish to work; which permits the machinery of production to lie idle while children are hungry and helpless. But the schools have made it possible for two-thirds of the states of the union to express the percentage of their illiteracy with one figure with all that that means for human betterment.

"Mr. Wells⁷ is wrong when he says that the 19th century, when it shall take its place upon the chronological charts of the future, will be symbolized by a locomotive upon a railway. If the 19th century stands for anything that will distinguish it and place it upon the honor roll of the centuries, it is its unparalleled achievements in public education. Mr. Wells's picture is not complete. In front of his engine must be placed a schoolhouse, surmounted by the American flag, surrounded by a group of defactoryized boys and girls."

F. D. BOYNTON

ITHACA, N. Y.

⁷ *North American review*, June, 1901.

THE NEW BASIS OF METHOD ¹

The study of the art and science of education today involves, among other phases, consideration of the learning processes as these are connected with the various subjects making up the curriculums of our schools. The study of method may be approached from either one of two standpoints. On the one hand, in connection with the organization of the content and in the development of devices of presentation of the special subjects, such as the mechanics of reading, number work, writing, chemistry, French, drawing, and the others, we obtain the studies of special method; on the other hand, when the educational process is viewed less with reference to the mastery of special subjects and more with reference to the physiological and psychological processes involved, we have what is sometimes called general method. In the former case the peculiar characteristics of subject-matter largely determine method; in the latter, the main influence comes from a consideration of the wide educational ends to be attained, as these may be expressed in terms of habits to be formed, appreciations to be stimulated, knowledge to be acquired, and ideals to be developed. A study of the learning process, when special method is under consideration, tends to expend its effort on subject-matter; while the influence of the study of general method is to emphasize the powers and processes of the learner himself.

Historically it would seem to be true, except at rare intervals, that the development of the art of teaching tended to center about the thing which it was deemed desirable to have the child learn. Hence the processes of trial, experiment, and selection have tended to produce an elaborate body of

¹ A lecture delivered at the West Riding County Council Summer Vacation Course, Scarborough, England, on July 29, 1907.

method—method of organization of subject-matter as well as method of presentation—in connection with each one of the studies. Each division of mathematics, each phase of the study of the vernacular, writing, drawing, Latin, manual training, history, each one of the sciences—in every case we find a more or less detailed and elaborated methodology. And running thru it all we find one prominent characteristic: the organization of subjects for teaching purposes seems to have been effected by mature and scholarly minds which have made but grudging acknowledgment that the limitations and peculiarities of the child mind might have to be taken into account in making the learning process most effective. Only seldom, historically speaking, have textbooks been written or other organizations of the subject-matter of special studies been produced by those who, either by virtue of keen sympathy and intuition, or even owing to long experience, could enter easily into the interests, capacities, and points of view of children. And it must be remembered that it has been chiefly in the organization of the special subjects that, in the past, conscious method manifested itself.

Note how the adult and scholarly mind has worked in producing the teaching organizations of the special school subjects. In proportion as knowledge has developed, underlying principles have come into view and logical system developed. Thru long experience and study the mature mind comes to grasp the general outlines and principles of a study, and, having found a few simple keys to the whole, which simplifies it for him, he immediately assumes that such order should be most effective in teaching children. Not many years ago the student of script letters was able to discern a few simple elements of which nearly all the letters were composed. What more natural than that a scheme of penmanship teaching (now happily obsolete) should be developed which would involve as the central feature of its method the complete and preliminary mastery of these elements? Again, it is found that much of drawing involves the application of a few elemental forms; and, naturally, systems of drawing for children have been developed which require years spent in drill on these elemental

forms. The varied processes of applied arithmetic may be comprehended in a small number of fundamental rules; the complexity of machines may be resolved into six or even two fundamental forms; the study of the plant world may be approached thru the classifications which order and simplify it; and so on for each subject which enters into the schools. And in each case that logical order or natural order (in the external world) has been seized upon by the adult maker of schemes of study as giving the most effective basis of method for teaching purposes.

So long as teachers failed to study the learning process as conditioned partly by the limitations and peculiar powers of the child's mind, it was natural that this should be true. To the discoverer and admirer of organization in the various divisions of knowledge, it was inevitable to think of these as exhibiting the most effective way for the learner. If all penmanship may be reduced to a half-dozen fundamental forms, why not secure the mastery of these at the outset? If all reading involves the alphabet, and the ability to unite its members into untold numbers of meaningful and meaningless syllables, why not give the first two or three years to drill on letters and syllables? If the mastery of tool processes seems to involve, sooner or later, certain detailed and very special types of skill, why not strive for these at the outset, as has been done in certain types of manual training? There have been times when the study of a foreign language began and continued long with its grammar; when the study of literature was mostly a study of the lives of authors and lists of their work; when the study of music, at least in the schools, was mainly a study of the written technique of music; when the study of history was an attempted mastery of the dates and the far-reaching generalizations of history. We have seen the study of physics by beginners confined mainly to tasks in quantitative work, because the mature mind finds quantitative method so serviceable. Not long since the teaching of biology by many teachers was organized on the basis of a logical system beginning with the most elemental forms. While it may not be true that all of our studies still exhibit these vices at their worst, it may

well be questioned whether the studies as we have them organized for children, especially in the upper elementary grades and secondary schools, are not primarily determined in their method by logical and other considerations quite external to the intrinsic capacities of the learner himself.

Now, on the other hand, when the educator tends to study the learning process largely apart from special subjects or apart from the bias which a too exclusive consideration of subject-matter seems to give, and more with reference to the child as a self-active organism, developing in a material and social environment which in itself is stimulating and educative, it is natural that the traditional school subjects should receive less consideration. For, under these circumstances, the educator realizes that, in any environment, a large part of the sum-total of learning is quite independent of artificial direction and manipulation. Nature has so equipped the child with instincts and impulses that he literally must learn. A thousand physical adjustments, some of them very complex, he will learn even if deprived of human example. In the presence of human example the mere exercise of the instincts of imitation and invention gives him speech and numberless other social habits and appreciations. During the years ordinarily given to school life he will, if a savage, or if loose among his fellows and his elders, acquire a vast range of useful habits, significant knowledge, and influential ideals. For all this learning no schools need be provided, no teachers' salaries paid, no textbooks or schemes of study organized. Even more significant, there are required no long hours of confinement at hard desks, no penalties and rewards, and no final examinations. It is all part of the natural growth process, as spontaneous as the play of animals or the flowering of plants.

Viewing education from this side, it is natural that the enthusiastic man who is little concerned with special subjects should desire to make all education simply a somewhat wider and somewhat more directed form of that educational process which nature organized for human beings long before schools were dreamed of. Method, from this standpoint, becomes less a matter of the fine adjustment of this or that bit of external

knowledge or process of acquiring skill, than of providing a rich environment and a field for free expression of native powers, to the end that the child will, thru sheer force of the unrestricted but guided and aided growth process, reach the higher levels of habit, appreciation, knowledge, and ideal. Under the influence of this conception, the belief develops that in each department of human knowledge and attainment there is somewhere an order of approach and development which closely corresponds to the natural growth process and which is the most effective teaching order on the one side and learning order on the other. The essence of method, as here conceived, consists in putting the child in an environment of suitable stimuli and then allowing the natural learning powers to do their inevitable work. Not the perfect organization of subject-matter according to logical schemes, it is claimed, but the presentation of it in ways that correspond to the child's native powers, is the function of true educational method. If the child has a native thirst for knowledge, why may we not lead him into an environment of knowledge, geographical, historical, or scientific, and leave him free until his natural demand for aid in organizing it shall again call on us for additional suggestion? If the unspoiled child craves expression thru speech, thru drawing, and thru constructive activities, why should we organize this or that scheme which is denaturalized by adult experience rather than provide him the tools, the objects, and the suggestion which will suffice to draw forth his own activities? So questions the theorist in this field, but it must be admitted that he can point to no well-developed scheme of instruction based on his theory.

The influence of this conception has, however, been sufficiently great in recent years to produce considerable modification in educational method. In some slight degree it has tended to introduce new kinds of subject-matter. More important for present purposes, it has tended to affect the methods of organizing and presenting the traditional subjects—for, after all, the schools may not aim at the complete educative process, and their field is largely determined by the traditional organizations of knowledge and skill which we call subjects—and in

providing certain new ideas of educational aims. In much of primary teaching the logical organization of subject-matter has largely given way to a teaching order, empirically determined, which is sometimes called psychological or natural, and which is unquestionably more effective and economical. With regard to the subjects more adapted to older children we hear it constantly insisted that we must search for a more pedagogical order for the reason that the older and more artificial order of organizing and presenting subject-matter fails to interest pupils, fails to produce a valuable permanent result, and tends to bring education into disrepute.

It can easily be shown that in primary schools of today children are rarely taught penmanship, reading, and number according to the more strictly logical methods that were once in vogue. Drills on the alphabet and on the elemental forms of letters as used in writing are not necessarily abandoned, but they follow a considerable time after the pupil's introduction to printed and written words as something nearly allied to the objects about which he thinks and cares. Primary teaching has found avenues of approach from object, thru picture and other concrete representation, to purely abstract symbol which, whatever their inherent lack of system, as that appeals to the adult mind, constitute a far more effective order for the naïve powers of the young learner than anything which preceded. In the teaching of drawing we are now in the midst of a transition from the logical, uninteresting, and, for the majority of children, less effective formal processes to more natural processes (natural from the standpoint of the child learner) which are still experimental. The same effort at transition is found in manual work. It is recognized that the child, left to himself in an environment that is full of suggestion to constructive activity due to the presence of tools, the opportunity to use them, and the suggestion of elders at work, becomes spontaneously an imitator and develops powers and interests which no formal process of teaching can give. Left to himself, the child uses tools, first with little purpose, then in a deliberate attempt to realize aims and projects partly due to suggestion and partly due to invention. But, as educators

clearly see, the forms of manual training which have already largely become traditional, take little account of childish capacities, and derive their chief principles of organization and method from the carefully studied experiences of mature workers. These forms of manual training not only do not encourage naïve childish tendencies, but even flout them by laying an embargo upon the child's native desires to experiment and to try to make things which have to him a genuine significance in use.

Recent developments in the teaching of mathematics point also to the influence of the conception that logical organization of subject-matter is not a final basis for the method of the teaching order. For it is believed by the proponents of the so-called Perry movement that the central deficiency in the teaching of mathematics at the present time is the too great insistence upon the logical and abstract, to the exclusion of the concrete and applied. Teaching geometry largely thru its applications certainly appears at war with the simple and orderly teaching that is based on the strictly logical organization of that subject; but experience may show that there are many paths thru applied geometry which reach the real goal of learning more effectively than the traditional ones. Among the sciences, it is apparent that in the best teaching of nature-study modern method is coming nearer to a more natural order, as concerns the learner. It is noteworthy that biology in secondary education, whether under that name, or as botany and zoology, has attempted many schemes based upon the logical organization of subject-matter which appeals to the mature scientist, but without success; and that in the best secondary schools it is now following various experimental orders which are frankly claimed to be psychological or pedagogical in their nature.

Illustrations might be multiplied. On either side of the question are camps of those who teach geography, to some extent teachers in one and geographers in the other. The historians have given the world new definitions of history and new tests of its organization, and are insisting that those who teach history to children shall accept their criteria; and educators

who think they understand children are waiting expectantly for the man who is at once historian and also learned or intuitive of the ways of growing youth. In some respects a natural method in selecting and presenting the materials of literature has been found for all the grades; but so far it is not believed that the American secondary school shows traces of this influence, tho the English secondary school has felt it to some extent. In the teaching of modern languages there are methods called natural, but whether they are so is still a question of fact.

The foregoing represents in outline two great and largely opposed theoretic foundations of method. The first grows out of the exclusive consideration of those phases of human experience which are chosen as the subjects of school education, and is primarily characterized by the logical organization which develops in the mind of the adult student and the most inclusive thinker; this logical order and full content modified, reduced, and diluted only where painful experience renders it absolutely necessary to make certain accommodations to the child's immaturity (or stupidity, as some are prone to think). The second represent an attempt to utilize to the full the possibilities of the learning processes which are a part of the natural inheritance, the teacher acting as a guide, example, and purveyor of opportunities for learning rather than dictator of content and method. In the first, the thing to be taught determines method; in the second, natural processes of learning claim chief attention. The ultimate ends are not greatly different; under both theories there is substantial agreement as to the elements of the social inheritance whose mastery must be made the end of school education. The essential opposition lies in the methods of attaining these ends.

The educational literature of the day abounds in criticism of each theory and especially of the observed results of the application of each theory. It is believed by many educators that schemes of teaching built largely thru study of subject-matter are failing to produce results. Especially is this believed to be true in the field of secondary education where the influences of recent pedagogical thinking have, as yet, hardly

been felt. It is claimed that formal education does not function in any kind of genuine experience, or that it functions abnormally. Faulty method produces mental sterility, and compels the children to forsake the school in order to gain contact with reality, as that answers to their instinctive demands. In some quarters it is believed that many of the evils attaching to the wrong methods of teaching which take little account of the natural capacities and limitations of children are insidious in their nature and, detected long after the harm has been done, can not be traced to their real cause. Good ground can be found for the assertion that the too logical organization of subject-matter (which means, in effect, that it becomes too much removed from the processes of learning on the natural level) may be responsible for a subtle arrest of development in the mental and moral nature of the child, comparable, in its results, to premature and mal-adjusted physical labor on the body. Attempts at learning carried along in opposition to the natural processes result finally in a paralysis of interest and an incapacity for spontaneous and active effort in the fields of human experience involved. Hence the seeming paradox that we may, by extensive teaching of English literature (in ways remote from natural), destroy all taste and appreciation for the kinds of literature which we teach. Hence the probability that modern methods of teaching science in secondary schools may, except in a few cases, destroy the native curiosity and interest which, if permitted or encouraged to grow in more natural ways, might result in permanent increase of pleasure and capacity in these fields. Hence the fact that wrong methods of teaching religion and morality, methods themselves the outgrowth of too exclusive consideration of the subject as it appealed to mature leaders and thinkers, have operated so as to stultify true development in these directions. In general the criticism is repeatedly advanced that the limitations of a pedagogy built largely on considerations of the logical order of subject-matter are not found so much in the immediately recognized difficulties of teaching as in the permanent arrest of development which ultimately supervenes. From the standpoint of the modern educator

there is something quite pathetic in the ease with which children can be artificialized in the educative process. They can be taught schemes of language, literature, science, history, and other studies with apparent good result, and can be successfully crammed for the tests which examinations give. It is only when we consider the deeper significance of it all, say the critics, in producing individual and social arrest of development and ultimate decay, that we can realize that nature has established certain paths of educational procedure which can not be greatly ignored except at our peril.

On the other hand, schemes of method based more nearly on the supposed natural process are frequently open to the criticism that the interest they evoke is temporary rather than permanent, that they fail to produce the concrete results in habit and knowledge which the world demands, that they tend to make of the youth a barbarian or "natural savage" rather than the refined and molded man demanded by modern society. Where the movement for a less artificial education has had its effect on method, it is claimed that there has been a decline in certain measurable kinds of efficiency. Children read and write less well than formerly; their arithmetic knowledge is imperfect and unusable; their knowledge of history and geography is vague and mixt with much error; their execution in drawing, language, and manual work is slipshod and characterized by low ideals and lack of standards. What does it profit a child if he have great interest in learning to spell if he never learn to spell? As was said before, primary teaching has unquestionably justified the change in the basis of method; but it can hardly be said that the same is true of the attempts to reorganize the subjects of the upper grades and the high school.

To the criticisms of the second theory it may be answered, of course, that any methodology based on a consideration of the natural learning processes must be a thing of slow growth and that we can hardly expect any great achievements until, in the upper schools, methods shall have been experimentally worked out, as they have already been worked out in the primary schools. But this is small satisfaction in view of the fact that

it is especially in the maturer pupils that the world demands some tangible evidence of the results of education.

Where, then, can the practical educator of today find a sound basis of method, one that will combine a maximum of good with a minimum of evil? The writer believes that a careful study of the best educational experiments of recent times and of the processes involved in procuring excellent results in the physical, moral, and vocational education of individuals and groups in the past will show that in all best method there is involved a conscious or unconscious recognition of the two large principles discusst above, but each in a definite relation to the stages of the learning process. In individuals or among groups of individuals education has become sterile, cramping, and repulsive when its votaries have too greatly intruded the adult point of view and the mechanical forms of adult thinking on youth; and on the other hand, when enthusiastic teachers and educational prophets have been able to supplant traditional subjects and methods with others supposed to lie near to the lines of natural and unforced development, there has been a failure to realize the habits, forms of skill, and definite knowledge which social conditions demand. But whenever and wherever it has been possible to combine the two principles it would seem that education has more nearly approximated a maximum of efficiency.

On the basis of this accumulated experience it would seem, for example, other things being equal, that in organizing human experience for the purpose of teaching young children, the pedagogical rather than the logical order should receive consideration, but that with increasing maturity of mind there might be a gradual shifting of emphasis to the logical. Again, other things being equal, and age being left out of consideration, it would appear that the early contact of the child or youth with a new field of human experience which is to be made his thru the learning process, should be governed by pedagogical rather than logical considerations. Again, within any study which is long pursued for the sake of a considerable body of habit or knowledge, it would seem desirable to vary the procedure from natural to logical and the reverse around each fairly

large unit which might develop within that subject-matter. The reasons for this shifting from one organizing principle of method to another lie in the fact that underlying all formal, logical, and highly systematized learning is a substratum of kindled feeling and interest, crude first-hand knowledge, and aspiration and ideal such as spring from large self-activity. These rough, undifferentiated, and pervasive qualities are best developed by those forms of learning which approximate the spontaneous. They seem to be basal to permanent interests and to the fullest development of organized and systematized habit and knowledge to be acquired later. The idea might be expressed in another way by saying that the true educative process consists in first providing abundant opportunities for that development, in connection with any study of practise, which comes from the largely spontaneous exercise of the instincts and other natural capacities; and then in proceeding to build on this foundation the habit, skill, knowledge, and ideal which are demanded of civilized conditions, and which require what we term artificial organization on the one hand to correspond to artificial requirements, or logical on the other as best exhibiting the grasp which experience and insight have attained in the world of knowledge.

A few examples will make this clear. The child in a propitious environment of implements and suggestion naturally seeks to express himself thru drawing. His early drawing is crude, imperfect, and shows lack of knowledge of elemental principles. But in freely expressing himself the child gains a body of experience and some skill which may be fundamental to later development in this direction. Play, of course, provides an analogous situation in the fields of physical, social, and vocational development. Or take the case of a boy provided with the means and suggestion for work in physical science. Left to himself such a boy reads, experiments, procures crude results, all of which may not apparently advance him far in the systematic study of physical principles or in the acquisition of skill of manipulation. Yet there is good reason for suspecting that the boy who does not have opportunity for this stage of development (which is not now allowed

by the schools) comes to the systematic study of physics with an insufficient background of experience and interest, and these can not be developed by the logically arranged courses of experiments and study of principles found in the schools. It may well be questioned, in view of the results in our schools, whether the systematic study of literature in upper grades should not be preceded by an extensive provision of opportunities for reading largely along the line of the natural tendencies, exercised, of course, in an environment of wholesome material and suggestion. Similarly in the field of history. To the child, as to primitive man, history is more than a cold account of facts; it is something which involves feeling, imagination, ideal. Left to himself the child may tend to gather his experience of the past and remote from song, picture, tale, myth, novel, and epic as well as from the books which offer more exact statements of fact. Whether we study the lives of peoples or the biographies of individuals, we have yet no evidence that the approach to history thru the above channels is not the most natural and, in the long run, most effective. The danger, of course, lies in the fact that so many individuals are allowed to stop before they have acquired some of the methods and content of exact historical study. But no less great at the present time is the danger that young children will be fed on historian's history, which is good for the historian but may be husks for children. Illustrations might be multiplied from other subjects of ordinary curriculums.

Can we, then, say that we have already with us to some extent a new basis of method? Can we not in connection with any study or pursuit of the schools recognize that what might be called the processes and methods of spontaneous learning require recognition up to a certain point, after which a transition should be made to the methods begotten of mature human wisdom acting on past experience? It seems to the writer that we have already a partial recognition of these large facts, but that in connection with certain schools and types of education we refuse to allow ourselves to escape the habits and prepossessions of tradition, or that the school-teacher allows himself to be enslaved by methods developed in schools

where mature people study. A great difficulty lies in the general unwillingness to make education an experimental field of applied science and art. When, in any given subject of study, we have a carefully worked out logical organization, it involves a courageous and adventurous disposition to depart from it and to seek in the wilds that organization which will carry more of an appeal to, and be more effective with, the beginning student. In the absence of any complete or helpful knowledge of genetic psychology every teacher who would utilize the natural processes of learning as foundations for later systematization of knowledge and habit is obliged to experiment, and sometimes almost blindly. Here the methods of trial and error and selection are yet largely necessary.

It is, however, essential that the educator get some conception of the principles involved. Doubtless we can say of much American primary education that it recognizes the principles, so far as small children are concerned. Yet it is of importance that we recognize that, after all, it may not be a question of age that is involved so much as the relation of the content and development of the mind to a study or practise (or, more significant, the large units within these) which is about to be taken up. It may be that even the fairly mature mind, approaching a unit of knowledge or practise with which it has thus far no connections, should make its first approaches largely along the planes closely related to natural learning. It may be that the chief weakness of our secondary education is that it fails to make allowance for a modicum of natural learning before the highly systematic organizations of material are taken up. It may be that the constant complaint in high school and college of the immaturity and unpreparedness of the student finds its real source, not in the lack of technical skill and specific knowledge, but in the unpreparedness of attitude and interest and basal experience which in so many cases are not the fruits of our present methods.

No basis of method can be successful in a permanent way which does not recognize, on the one hand, the fundamental and pervasive character of the learning processes which nature developed long before the advent of modern culture; nor, on

the other hand, the imperative demands of modern social and cultural life in regulating, organizing, and rendering efficient these same learning processes along specific lines. It should be apparent that the logical organization of subject-matter represents something very useful as a basis of method, if not introduced too prematurely in the mental and moral evolution of the child. What is needed is care in providing the child, as a preliminary to learning on the artificial level, with an abundance of experience on the natural plane. Sometimes the home does this, and it is easy to see that the more immediate industrial life of the farm and the shop in past centuries was a rich source of this basal experience. But if the home does not provide it, whether in cultural, social, or vocational directions, then the school must do so, in the interests of effective education. The new basis of method involves, on the one hand, a guarantee of this fundamental experience as a basis of motive, interest, and first-hand knowledge; but it also involves the necessity of building on this foundation a structure of organized habit, systematized knowledge, and efficient ideal, which subsequent course of learning may very fully involve the logical and artificial organization of subject-matter.

DAVID SNEDDEN

TEACHERS' COLLEGE
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III

SURVEY COURSES IN THE SCIENCES AND HOME ECONOMICS ¹

To the Members of the Lake Placid Conference:

No phase of present-day education is more interesting to the careful observer than that of domestic economy or household economics. Coming somewhat late into the field of recognition, it has already made headway, and apparently is upon sure foundations. All over the country, in every grade of schools and among all classes of school people, there is a constantly increasing interest in this subject. The curriculums of high schools are being modified to include this work, but the place and value of it all are gaining but tardy recognition from the standpoint of practical incorporation in courses of study in secondary schools. In most high schools—probably in all but those of a few of the largest cities—it is difficult to secure the money necessary for adequate equipment, and it is practically impossible at the outset to employ more than one instructor. In many places, a high school principal who undertakes the advocacy of this new branch of instruction, takes his educational life in his hands as he does it. There is still a very prevalent feeling that this is a subject concerning which every young woman can secure all the information and instruction which she needs, at home and under her mother's direction. If public sentiment or the sentiment of the school board has gone further than this, it rarely reaches appreciation of the necessity of preparation on the part of the teachers—certainly not the necessity of specialization. Opportunity for preparation of teachers is exceedingly inadequate, both as to the number of those who may be taught, and as to the quality of instruction. Normal schools, even those of high standing, and co-educa-

¹ Report of the Committee on the Training of Teachers of Home Economics, presented at the Lake Placid Conference on Home Economics, July, 1907.

tional institutions, are doing very little, women's colleges are doing less, special technical schools are few in number and often are specializing too much. The general situation practically reproduces, item by item and step by step, the conditions under which the so-called natural sciences came into the high schools: beginning with scant laboratory equipment, if any, and with one teacher for all branches.

The needs of the situation seem to be, first, teachers who are willing to undertake this work in ways that will *not* redound to their own credit. There are and always have been and probably always will be two classes of teachers: those who can teach what they know, and those who can teach more than they know yet less than they know to be necessary. Those who fall in this latter class by necessity, need careful watching. Those who take up this work from choice, animated by what is truly a missionary spirit, willing to do what they feel ought to be done, without proper equipment on their own part, without proper apparatus, and without expecting adequate recognition—these ought to be recognized as public benefactors. Such teachers have been known and have made themselves felt at every step in educational development. They are obliged to choose between a daily expenditure of their entire time and strength upon their classes, and more restricted effort with larger returns in reputation and in salary. It is true that they will be “producers” of men and women rather than of monographs and learned dissertations, and unfortunately it is true that they must wait longer for recognition in the former work than in the latter. But there are those who conscientiously and gladly make their choice, and give themselves without reserve to the immediate needs of the situation at large, or of their particular pupils, without thought of what all this may mean to themselves.

Second, there is need of such modification of courses in technical and normal schools, and in women's colleges and co-educational institutions, as will not only permit but will encourage survey work, a more general view of the field, time given to securing serviceable knowledge—finding in all this at least reasonable preparation for elementary instruction in the

branches included under the general term household economics. The courses which most need such modification are those in botany, chemistry, physics, physiology, economics, and sociology. Just what this modification ought to be and may be, will be considered later in this report.

With these conditions and these demands of this part of the educational field in view, on the fourth of February, 1907, a circular letter was prepared, in substance as follows:

Education in domestic economy is already taking form in the public school system, and within a few years something really worth while in this line is likely to be attempted in every important high school in the country.

The standards of preparation for teachers' work have been so raised that every such high school today demands, as far as possible, thoro college training, or work in a high-grade normal school which is quite equal to this, on the part of those seeking high school positions.

If the instruction in domestic economy is to be undertaken in a dignified and worthy way, then the requirements of those seeking places as instructors in this branch must be as exacting as the requirements made of any other high school teachers.

The only way in which these requirements can be met is by a modification of present science courses in higher institutions of learning to which women are admitted.

These desirable and necessary modifications are, after all, only those which ought to be made in any event, seeking the general advance of the institution. Surely college students of either sex ought to have such a general survey of chemistry and physics and biology as will enable them to read intelligently articles which appear in the current press and in the educational literature of the day, without the necessity either of using a dictionary or of reading blindly. This serviceable information is also exactly what they need in their daily lives. If these general courses can be secured, either by modification or by election, in women's colleges, high-grade normal schools, and co-educational institutions, there seems to be no reason why, taking these courses, young women should not be reasonably well prepared for teaching domestic economy in the high schools—except as to the technical side of such work, for which opportunity must be offered in technical schools or in normal schools; it is hardly to be expected, perhaps not even to be desired, that it will be made a part of college work.

In other words, if women who have opportunity for higher education can be so trained that they can read the simple popular bulletins of the scientific departments of the general government with interest and with reasonable understanding, they have sufficient information to undertake the elementary work in domestic economy with reasonable hope of success. If college-bred men and women can not read these so-called popular bulletins intelligently, of what earthly use are such bulletins to the public at large? And why should the government continue to spend time and money in getting the information thus reported?

This letter was sent to each of fifty presidents of high grade normal schools, women's colleges, and co-educational institutions—a mailing list which was selected with the greatest possible care, and which included only the names of those long and intimately acquainted with the writer of the circular.

From the replies received the following extracts are made, as more directly bearing upon the question in hand:

“I do not think that I have given sufficient attention to the subject of domestic economy to make my opinion of any value. Some of our strongest high schools have for some time been furnishing facilities in this branch, for their pupils. Two have received handsome private endowments for the purpose. . . . I think the strongest schools are likely to continue the work, and to a great advantage, if sensibly conducted. We are in danger of blundering in this country by making a fad of a new thing or by overrating its importance. Caution is needed at every point.

“In respect to giving all students a general view of the various sciences, I am thoroly with you. The difficulty in colleges is to persuade the professors (1) that it pays for the schools to give their instruction in such form as to make it of value, and (2) that it is worth while for a college professor to give it himself. He generally prefers the advanced special work to which you refer as the ‘angle-worm’ department.”

“I agree with you most heartily, and hope that some of the needed reforms in the curricula, respecting which you write, may be brought about.”

“We plan for strong courses in domestic art and science in this university.

"I am a great believer in the general courses you have in mind and I have tried to introduce them here. Success to date slight, as professors seem to think such work *infra dig.*"

"You propose important and searching questions, yet questions which must be weighed and answered by educators. We must grant today the connection between faith and works, between ideals and life, and knowledge and practise. All grades of general education must recognize the laboratory, illustrations, and the applied side of many subjects. The only question is, in what lines and how far. I feel sure that practical courses in every science might well be offered in colleges, provided a thoro knowledge of some leading subjects be pursued as major requirements. I believe, moreover, that even in secondary education adequate time might well be given to the ethics and economy of 'spending' and to the artistic merit of things for use and adornment in the home."

"Having a daughter in a woman's college and being a man at the head of a woman's school, I find myself in some points inconsistent with myself. The demands of public school education on the graduates of this normal college are such that we have no time for teaching domestic economy, and hardly enough time for the necessary work in equipment for general teaching. Yet the experience of my daughter is such that I feel the absolute necessity of a course in domestic economy for every woman. I wish her college would give her a thoro course in domestic economy. . . . And I realize that what is good for my own daughter ought to be good for all young women, yet the necessity under which we labor prevents me from doing anything in that direction in my own school.

"It seems impossible for the individual school to have much effect upon the public school system. If this school, for instance, were to spend sufficient time for thoro equipment for teaching domestic economy, in which I certainly believe, it must do this by neglecting the teaching of several subjects which the public schools demand that our graduates should teach, and the result would be the loss of positions to our graduates . . . and the gradual decline in popular favor of our school. Until some movement can be made all along the line, therefore, we feel hopeless. The feeling sometimes proclaimed that normal schools lead, is only partially true. We are in a position to purvey to the public, and must offer what the public wants. I assure you, however, that personally and professionally, as far as circumstances permit, I am heartily in favor of the movement in which you are interested."

"Domestic economy in the public school system will parallel bench work and other forms of manual training for boys, in the schools of the future, and of the not distant future either. In rural schools and in the smaller towns, all of this manual training work and domestic science work will be presented, ordinarily and of necessity, by the teachers of the school. That makes it impossible to have teachers of extended attainments, since salaries are inadequate. In some cases there can not be specialists to do the work. It must, therefore, be elementary in character and lacking in more scientific topics. The normal schools can give their students sufficient training for them to do something in this direction and do it with a fair degree of intelligence. In the larger towns and cities this work will naturally be in the hands of special teachers—and all that is needed to get the teachers is a demand and a good salary. There are plenty of college women who would be very glad to prepare for this work, and more and more they are dropping into it.

"I agree with you thoroly as to what you say about the wisdom of a general survey of common knowledge in the colleges. The hobby of Comenius, as you know, was Pansophy. . . . Of course it is impossible to realize his ideal at all; but science is becoming so unified and so simplified that it is entirely possible for students to have an excellent general view of the great fields of human thought, and yet not dissipate their energies to such a degree as to prevent their knowing anything accurately.

"I think with you that there is a growing tendency toward specialization that is extreme . . . leading large numbers of people to specialize who ought to have far more general knowledge. . . . What you have to say with regard to certain forms of art education, also meets my very cordial approval."

"I am very much interested in your views on the important subject of your letter, and I thoroly sympathize with the line of your suggestion. I hope to see, even in the few years yet allotted to me, quite an advance in this direction. Yet the institution with which I am connected has done nothing whatever in the line of your suggestions. . . . In regard to the education of women I agree that one of the most deficient vocations at present is that of the home-maker, and I sincerely hope for material advancement in this direction."

"With regard to household economics, I have a very strong sense of the necessity of that subject in our normal schools and women's colleges. . . . The main trouble is that it may

be made a mere information course, purely descriptive, suited to a high school, but giving college graduates no grasp on scientific principles. The information course only has no place anywhere in college, and I doubt if it has in a normal school. It is vastly more important that a woman should grasp the scientific method of approach to every problem, than it is that she should know the number of cubic feet of atmosphere that must be allowed to each pupil, or the best method of preserving milk on a hot day. Yet this does not exclude, of course, the acquisition of a vast amount of valuable and indispensable information. Household economics are certainly beginning to attract teachers of higher grade and better equipment, and I look forward to the time when it will be a recognized subject in all of our institutions for the education of women."

"We are already doing in this college much of the work which you have suggested should be done in the education of women. We have general courses in chemistry, physics, and biology which will enable students, who do not wish to specialize in these departments, to gain an intelligent idea of the sciences, and to read intelligently articles upon them. We have a course during the first session of freshman year in hygiene and physiology. In the art department we have lectures upon the artistic arrangement of dress and of household decoration; and we have a course of lectures upon the duties and responsibilities of a wife and mother, given to the senior class before graduation.

"I sympathize heartily with the general idea of giving some instruction in domestic economy, provided it is not superficial and too technical in its character. The woman who has the advantage of a liberal training is able to learn the details of housekeeping with ease after graduation, and it is not necessary during her college course to spend a great deal of time in the study of the detailed duties of a housewife."

"We already provide thoroly organized courses in the sciences, covering both the subjects and the method considered desirable as a basis for the study of domestic economy. . . . In all of these, attention is given to the economic phases of the subjects. . . . I have great sympathy with the idea of introducing a moderate amount of economic work, even including domestic subjects if placed on a sound scientific basis, not only into the high schools but into colleges for women. Such subjects so taught have a very high educational as well as practical value."

"As I understand your letter, you favor a general college education of the closest bearing upon the practical problems of life, especially domestic science; and a high-class normal school education of a similar general character, and in addition thereto the actual technical teaching of domestic science.

"I agree with you as to the nature of the general education that should be given in colleges, but I do not look upon a well-organized, high-class normal school as one that gives general education for its own sake. A high-class normal school should be engaged in working out the best method of teaching the branches of a general education, incidentally emphasizing the relative phases in a general education, and thus indirectly promoting education of a decidedly practical bearing.

"Such a normal school could give also a course in the teaching of domestic science, just as it would give a course in the teaching of drawing or other manual subjects.

"The most important need of the hour is the establishment of better and more practical ideals of education. . . . The object of education is to prepare in the most definite and practical way for the occupations which follow school-life. Education, therefore, should take up the branches that every one must use, and in the order of their relative importance . . . all of which when understood and presented with relation to practical life-needs are clearly essentials. . . . The secondary school should do this kind of general work in a way that has a practical bearing on the occupations and employments of life, and must go far enough in these studies to equip their pupils for work in methods in them in a normal school that is preparing teachers for the elementary grades. . . . The general college would be expected to take these same branches and carry them in the same practical way long enough to enable the graduate to at once take up the highest class of technical work, based upon this strong foundation of general education. . . . Our greatest misfortune has been our failure to recognize clearly the desirable practical bearing of what has usually been termed general education. . . . All our education must have a definite end in view, and this definite end is greater efficiency in the occupations and employments to which we are to go, either as actual performers or as educators."

"I am in full accord with your views on this subject. We have in this university a department of household administration. The work includes domestic science and the artistic basis on which that rests. I believe thoroly in this kind of

instruction as suitable for high schools, and of course for normal schools as well as for colleges. . . . I believe in the value of that kind of training for young women whether they intend to teach or not. . . . If this movement should become a crusade, I am interested in it as well as yourself."

"I have been for some time holding a growing conviction that a chair of domestic economy ought to be established in all institutions where women are students. I do not know yet just what it ought to cover, but I do know that it ought to be taught by a woman of broad training and of thoro knowledge of the subjects she teaches. There are very few such women, because there is very little opportunity for them to be trained and very little demand for them after they are trained, but the demand would equal the supply. From the universities this line of work would pass downward into the lower schools, and there of course it would be especially useful. Somewhere along the line it is necessary that there should be thoro training and a broad grasp of the subject and unquestionable knowledge of the facts. You can not build anything on impressionistic work."

"You open up some interesting questions in your letter of recent date. To me they are interesting largely because I wonder why any one in this day and age of the world can hold any view opposed to that expressed in your letter. . . . We have given our girls thru the grades and thru the four years of high school work many of these practical things which have to do with the concerns of life after schooldays are over, and we are demonstrating that this can be done, and the girls can go to the university and acquit themselves creditably. . . . The colleges and universities are too conservative. Many of the people connected with them are still imbued with the idea that a university is an institution where nothing useful is taught and that the proposal to teach in a practical way the material which lies within the field of domestic science is not university work. Occasionally, also, we still find an individual who knows so little of the character and modes of action of the human mind as to assert that there is no valuable training and discipline in the study of domestic science subjects.

"One thing is certain, however, the colleges and universities now in existence must make provision for industrial education, or other institutions will come into existence and make provision for it. So long as the universities and colleges can fool the public and make them believe that purely philosophical work . . . is more valuable than practical work

based on scientific theory, they will continue to give such purely theoretical work. . . . It is always easier for such to say what they are not teaching than to tell what they are teaching, and it is easier to say what they are teaching than to tell what it is worth.

"Agitation was begun some years ago for the introduction of this subject into our state university. The president and most of the professors were opposed to it. . . . There was never any money available for this purpose. . . . The women of the state went to the legislature, and secured an appropriation conditioned upon its being used for the establishment of such a department in the university. They had to establish it then, but they have taken care to make it a course having little or no practical value. It is in disrepute among the students who take it, and among other students of the university who know what is done. . . . For years I have been trying to get publishers to bring out a botany that would deal with the subject not only from the scientific but from the economic standpoint. A number of publishers have told me they would get out a book if they could find a man who could write it. . . . We need something similar in chemistry."

"We are in danger of over-specializing in all our higher educational work. All over the country the universities are bringing extreme pressure to bear upon secondary schools to employ only university graduates as teachers. It is extremely difficult at present to find any university graduate who can do satisfactory work in a small high school where each teacher has to handle a number of subjects. They are thoroly imbued with the idea that they can teach but one subject, and very often their employers become imbued with the idea that they are unable to teach any subject.

"The conservative people who are holding to the old lines of college work and their culture value certainly must awaken to this fact, that the people of this country, from one end to the other, are demanding something additional in their educational system; that they are in earnest about this, and that if the colleges expect to do the work they ought to do, they must get in touch with this demand of the people, they must respond to it, and they must not laugh at it. It can not be laughed out of court, but the people who oppose it are likely to be not only laughed out of court but laughed out of a job."

"The matters which you discuss are of the greatest possible interest to us, because one part of our work is the preparation

of teachers of domestic economy, and we have come to know very well the difficulties involved in the problem. I feel it to be perfectly true that the subject will be more extensively introduced, and that there are not many good teachers available at the present time. We have found it difficult to secure the teachers that we need, and it will take some time before we can furnish the market with many candidates. The subject demands much broader training than is ordinarily thought. The various courses need to be made more systematic, and the scientific foundation more thoroly understood. . . . I deprecate any superficial scientific course, but it is a question of adjustment of time and strength, and, as you suggest, it certainly is important that the college graduate should have a general breadth of information which will enable her to read understandingly the reports and the newspapers of the day, and to have a clear conception of the principles and basic forces that underlie the various sciences. In the limited time of our college courses it is probable that these results can be obtained only by the establishment of some briefer courses, which shall be both informational and philosophic. . . . You are entirely right in the importance which you place on the relation of art and science. . . . The pedagogical problem for teachers in the department of domestic science is as great as that of any other, and needs as thoro and as broad preparation as can be devised."

"Without going into particulars, I agree substantially with all you have said in your letter; agree with you as to the value of domestic economy; as to the value of a general knowledge of chemistry, physics, and biology which will enable students to deal intelligently with the facts and problems; and agree with you that 'A general knowledge of the structure of our interiors is of infinitely more value to us than a minute and detailed course on the angle-worm.' . . . All that you say is very desirable and perhaps all these matters should receive more or less attention, as they are certainly important for the development of everybody. . . . But it is with a kind of weariness that I look over the great plan of study offered in colleges, and realize as I certainly do that there is a very great danger, in the multiplication of studies, of spreading the education of the individual over so large a territory that it will be exceedingly thin. We are getting to be so everlastingly practical and technical and worldly-wise and wealth-controlling that while students are undoubtedly better fitted today to enter upon the world's scramble for wealth and success, as it

seems to me they do not have quite the intellectual discipline and the intellectual power which they acquired under the older and more limited course of study. This is merely an impression—the tide is running the other way, and there is no use particularly in trying to stem it. We certainly must make education as practical and serviceable as we can, and we must let the student choose from a great variety of subjects those particular subjects that he or she supposes to be for the best, and hopefully trust in an all-wise and over-ruling Providence that the result will be good.”

“All administration of educational processes shows serious deficiencies in the preparation of instructors, in spite of the persistent effort of managers to secure teachers whose practises are at all comparable with their knowledge of the sciences. . . . The creation of courses of study in serviceable knowledge is so definitely demanded that managers are only awaiting assurance of the preparation of special instructors, in order to inaugurate the new work. . . . Opposition to manual and domestic work arises from a notion that such instruction will bear inferior literary results. This opposition can be successfully met only by securing an adequate range of literary preparation for each teacher—just as in modern days the housewife orients herself while she is engrossed by the minutiae of domestic duties, thru persistence in a literary habit which was formed during her college course. . . . The successful inauguration of the courses which relate to serviceable knowledge implies their establishment in institutions whose range of work is above that undertaken by graduates who in turn become instructors; hence, colleges and normal schools must get ready to equip instructors for high schools that establish manual courses with the expectation of permanent success.”

“The introduction of survey courses in the sciences is an important subject. In general it may be said that there are fewest objections to such courses in large universities, where they can be given by or under the direction of specialists; and most objection in schools where they can not be offered by specialists. We find it extremely difficult for a student to adjust his general work so as to take thoro general courses in physics, biology, bacteriology, and chemistry. . . . There are few institutions in which the instructional force is large enough to permit survey courses and also courses for the training of specialists.”

“While I believe that the undergraduate course should be along the lines of general culture and not of specialization. I

think there is more danger that education will be superficial than that it will be too thoro. We frequently find that students entering college have gained from their preparatory courses vague general ideas, rather than a mastery of the subject; a condition which the college must counteract and not encourage. . . . Accuracy, exactness, a mastery of principles do more than give information concerning the one form of life studied. Unless a general course is taken in a thoro and scientific way, it seems to me useless. The mastery of a limited subject is of more value than a superficial knowledge of a broader subject. . . . I question whether general intelligence on many subjects is of sufficient importance to justify its acquirement at the expense of a more exact knowledge of fewer subjects. I believe that the development not only of the man, but of the character, is influenced very largely by the thoroughness of work in any one line."

Of course these returns are not conclusive, but considering their source they must have unusual weight. It seems entirely evident that there is a very positive, intelligent, natural, and proper demand for more serviceable knowledge; and a belief that this may be secured without loss in either culture or power. It is to be regretted that the colleges, as usual, are not ready to be the leaders in this movement; are waiting to be placed under compulsion; are even reactionary in their conservatism. This status is only additional proof of that weakness in college administration which gives such undue weight to the opinions and preferences of those who have held instructional positions for a long number of years; whose viewpoint is always that of a past generation, and constantly minimizes the wise ambition and sound judgment of younger men coming fresh from the world at large, with clearer vision and wider horizons.

It is neither easy nor necessary to state specifically and in detail the modifications which ought to come in present college courses, and the additions which ought to be made to these. Briefly, and generally, the demand is as set forth in the "substance" of the circular of inquiry, already quoted at length: that is, that institutions of higher learning give survey courses in the four great sciences; that thru these survey courses or by special elective courses these sciences and economics and

sociology be related closely and practically to the affairs of life as these students will find them on graduation; that in women's colleges and co-educational institutions there be direct and practical application of the branches just enumerated to the opportunities and duties of home-making; that in high-grade normal schools there be established courses in the science and methods of teaching domestic economy (as in the science and methods of teaching other branches), and that in technical schools opportunity be given by electives or thru special arrangement of courses for reasonable preparation of those who must cover all branches of household economics as that work is apt to be first offered under a single instructor in the secondary schools of the country.

The details of this work and these changes ought to be the subject of careful consideration by a special committee, and of conference with authorized representatives of the institutions sought to be influenced. Members of the Lake Placid Conference will be glad to know that a petition, signed by a large number of prominent members of the National Education Association, will be presented to the Directors of that organization at the July meeting in Los Angeles, asking for the appointment of a special committee (like the well-known Committee of Ten and Committee of Fifteen) to consider this entire subject, in all its details, with a grant of \$1,000 to meet the expense of such committee.

The forward movement must be along such official recognition and careful investigation as just indicated, *plus* a free and intelligent use of the press by which to arouse public opinion, *plus* frequent conference with those charged with responsibility for college and normal school courses.

Respectfully submitted,

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IV

THE TEACHING OF ECONOMICS

Elementary economics has reached a stability of position in college curriculums not dissimilar to that enjoyed by mathematics and languages. As a subject it has come to be recognized as an educational factor of some importance in the training of the college student. Acceptance of this point of view by educational authorities has borne fruit in an increase in teaching force, enlargement of libraries, the publication of advanced studies in the realms of the political and social sciences, and the formation of separate departments authorized to teach and work in the distinct fields of economics, political science, and sociology. On the part of the student bodies the recognition has been evidenced by the crowded classrooms in which the elementary courses have been offered.

Unlike mathematics, economics deals with many unknown and unmeasurable quantities, but it is, nevertheless, as a science more human and more closely allied to life. Its questions can seldom be stated in the exact terms of a mathematical formula and exact answers are not given to the problems found in its field. It is a science of observation and not of experiment. The physical scientist can demonstrate the great principles of his science in his laboratory, but the teacher of economics is forced to build a mental laboratory in the mind of the student, a process replete with difficulty and pretty sure to result in many curious points of view. To do this with small groups in a fairly successful way is a difficult task, to accomplish it with the numbers now thronging the classrooms of the teachers of political and social sciences is a very serious problem. In consequence, methods of instruction reach an importance that almost outweighs for the time being the subject-matter itself.

It is, therefore, a question of some concern how the teachers

of the social sciences conduct their instruction and what results come from it. Of the first we can gain some knowledge by an examination of the methods followed; of the second but little can be ascertained except as the leaven of teaching shows results in coming years in clearer distinction and more thoro understanding of public questions.

Professor Hammond, of the Ohio State University, collected, some time ago, data concerning the teaching of economics in the different colleges of the United States. The table which is given below is a summary of that work. The questions asked related to the number of sections in the course in elementary economics, the number of students in each section, the length of courses stated in weeks, the number of meetings in each week, whether a text and syllabus were used, whether problems and collateral readings were assigned, and whether the methods of lecture, recitation, and quizzes were followed.

SUMMARY OF DATA RELATIVE TO TEACHING OF ECONOMICS¹

College	Sections	Number in Section	Weeks	Meetings	Text	Lectures	Quiz	Collateral Reading	Problems	Recitation	Syllabus
Amherst.....	2	40	13	3	Yes		Yes	Yes	Yes		
Brown.....	2	100	13	3	Yes		Yes	Yes	Yes	Yes	
Columbia.....	2	45	19	3	Yes	1	Yes	Yes	Yes	Yes	
² Cornell.....	2	37	36	3	No	2	Yes	Yes	Yes	No	Yes
Dartmouth.....	3	45	19	3	Yes	1	No	No	Yes	Yes	
² Harvard.....	12	33	37	3	No	2	Yes	Yes			
Indiana.....	3	35	13	5	Yes	No			Yes	Yes	
Illinois.....	5	25	19	3	Yes	1				Yes	
Iowa.....	3	3	19	3	No	Yes	No	Yes	Yes	No	Yes
² Johns Hopkins....	2	?	38	4	Yes	Yes		Yes		No	No
Kansas.....	?	?			Yes	Yes			Yes		No
Mass. Institute of Technology.....	6	50	19	2	Yes	Yes 1	Yes	No	Yes	Yes	Yes
Michigan.....	?	?	19	4	Yes	Yes 3	Yes	Yes	Yes	No	Yes
Minnesota.....	2	75	19	3	Yes	Yes 1	Yes	Yes	Yes	Yes	Yes
Missouri.....	?	?	19		No	Yes 1	Yes	Yes	Yes	Yes	No
Nebraska.....	1	80	19	3	Yes		Yes	Yes	Yes	Yes	No
Northwestern.....	1	50	19	3	Yes	Yes 1	Yes	Yes	Yes	Yes	No
Oberlin.....	1	50			Yes	Yes 2	Yes	Yes	Yes	Yes	No
Princeton.....	5	40	19	3	Yes	Yes 1	Yes	Yes	Yes	Yes	Yes
² Stanford.....	2	?	38	3	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Texas.....	2	75	24		Yes	Yes 1	Yes				No
Toronto.....	?	?	24	2	No	Yes	Yes	Yes			No
² Vanderbilt.....	1	30	36	3	Yes	Yes	Yes		Yes	Yes	No
² Vassar.....	?	125	36	3	Yes	Yes 2	Yes			Yes	Yes
Virginia.....	?	?			Yes	Yes 2	Yes				No
Williams.....	?	?	19	4	Yes	Yes 1	Yes	Yes	No		No
Wisconsin.....	?	30	19	3	Yes	Yes		Yes		Yes	
² Yale.....	12	25	36	3	Yes	Yes	Yes	Yes	Yes		No
Bryn Mawr.....	?	?			Yes	Yes	Yes				

¹ Since this information was collected a few of the colleges may have changed their method of instruction and the table will not hold good where such is the case.

² Long courses include economic history or money and banking in addition to the elementary economics. Figures in lecture column have reference to number per week.

Out of the twenty-nine colleges and universities listed in the table, twenty-two give a semester or more of the college year to the work, while three devote but a term and four give no reply to that question. The tendency, however, is toward the increase of the time given over to the elementary economics. This tendency has not been in the direction of increased theoretical instruction, but rather toward the presentation of facts and data relating to economic organization. Most instructors have been confronted by the inadequate knowledge of students on the very thing the theory is supposed to explain. The attempts to meet this difficulty are clearly seen in textbooks and in statements of courses. A new text, that of Professor Seligman, containing six hundred and fifty pages, was declared in the publishers' announcement to possess several features which distinguish it "from the many existing works on economics. In the first place the object of the author is not only to give the salient features of economic life and to analyze them in the light of modern research, but also to present a point of view from which to approach the great questions of modern economic policy. In the second place, the author believes that the function of economics is not only to explain what actually exists, but to show how it has come to exist and to forecast both the probable and the ideal future." Which, compared with Walker's statement that "the economist, as such, has nothing to do with the questions, what men would better do; how nations should be governed; or what regulations should be made for their mutual intercourse,"¹ clearly indicates the departure from the more restricted view. On the other hand, such texts as Seager and Bullock have introduced in the opening chapters a considerable amount of economic history.² In this respect, Fetter, in his book, has departed from the methods adopted by the writers mentioned and confined himself to the presentation of theory clearly illustrated by present-day problems and data. The fact remains that packing of courses with material

¹ Walker, *Political economy*, 22.

² Seager, *Introduction to economics*, p. 565+xxi; Bullock, *Introduction to the study of economics*, p. 581; Fetter, *Principles of economics*, p. 610+xvi; Gide, new edition, *Principles of political economy*, p. 705+xiv.

and the enlargement of texts under the criticism of omission have forced either extension in the time devoted to the elementary courses or compelled the offering of supplementary work largely elementary in character. The result of this development must be either a multiplication of courses or the overweighting of the elementary study with theoretical considerations.

The course in commerce given in the University of Wisconsin illustrates this tendency toward preliminary training before entrance upon the study of the elementary economics. In the freshman year the student pursues physical geography and physiography of the United States with languages, mathematics, and some history. In the sophomore year, first semester, the subjects of an economic nature are commercial geography and elementary economics. The Yale catalog shows a similar tendency, tho by no means so marked, in the courses in elementary economics, to which sophomores, juniors, and seniors are admitted; and physical and commercial geography open to sophomores, tho it should be said that the second is not required for admittance to the economics. The examiner in political economy for the American Institute of Bank Clerks, says, relative to the course in political economy: "The student should first read commercial geography! He should lay the foundation of his study of political economy by acquiring a knowledge of the general facts of commerce and industry, of the climatic and geographical factors affecting production, and of the agricultural, manufacturing, and transporting industries of the United States and of other countries. On the basis of these facts and of whatever business experience the student may have acquired, he should then study principles of political economy." These examples fully illustrate the point.³

The problem thus presented has been met in three ways: (a) by extending the time given to the work, (b) increasing the number of courses, and (c) thru the means of the syllabus, confining the work of the course to its proper place. Returning to the table, it appears that out of the twenty-five col-

³ Bulletin of the American Institute of Bank Clerks, October 1, 1905.

leges reporting upon the length of time devoted to elementary work all but three give one-half or more of the year. With the pressure of other work and the limitations of a college curriculum this is as much as can be expected, tho it hardly suffices to meet the demand for more instruction in facts and organization except at the expense of the study of principle. Where the college or university has had plenty of funds the problem has been met by increasing instructors and multiplying descriptive courses; this reduces the problem but does not solve it.

We come now to the third point, the use of the syllabus. Here again the table tells us that but six out of the twenty-nine colleges use syllabuses in the teaching of elementary economics, and of the six, two do not use a text but rely entirely upon collateral reading. The use of a syllabus sufficiently organized and detailed gives the instructor the opportunity of presenting such parts of a text as he desires without the necessity of relying upon it for the backbone of his course or of depending upon lectures to develop the outline. In fact the syllabus solves the textbook problem and the instructor creates his own textbook in accordance with the length of course, character of students, equipment of library. "Two things are involved," says Dr. Moulton: "one is a mass of facts, and these will be the same for all teachers; the other is the order and arrangement, and here one teacher differs immensely from another. But a syllabus has for its special function to indicate the order and arrangement of a piece of teaching; for the facts themselves it makes reference to the pages of books already existing. By a syllabus, then, every teacher may practically create his own textbook for each course of study he directs."

Evidently syllabuses are not in favor to any considerable extent in the teaching of economics, but the variant views of writers and the large textbooks now in use compel some process of selection; it certainly can be said, if this is true, the selection had much better be done by the orderly method of the syllabus than by the announcement of the daily lesson from the platform. There is the danger of hide-bound performance in the printed syllabus, but the instructor that allows himself

to fall in such a pitfall is pretty sure to come to grief under a lecture system. Moreover, the student is held to an outline and to a limited field, which can not be done even in a well-organized text, for the structure of the book is concealed in the printed page. A reading scheme is naturally associated with a syllabus, and this will cover in references and suggestion many times the ground of the other methods while holding the student to the outline of the subject.

The large classes have strained library facilities to their limit and under the old library methods weakened the reference work under the syllabus plan of instruction. The reserve shelf scheme has in a measure met the difficulty by placing the books within easy reach of the student, but this plan is subjected to two defects in practise: one, the large number of students to a book; and the other, the disappearance of the books at the time when most wanted. As a remedy for these difficulties two plans have been tried here and there in the different colleges, to which may be added a third as a suggestion for the consideration of publishers. The first one is the loan library, consisting of forty or fifty copies of each of the more important books used in the course. The object is to place in each student's hands a set of the books which he may keep during the instruction period of the course. In the larger colleges the numbers have multiplied several times forty or fifty which makes it impossible, except thru the generosity of a friend of the college, to secure the books from the meager library funds of most colleges. The second plan has been referred to as the case-book system of instruction, which is well known in the colleges of law, but practically unused in the academic colleges. "The primary motive," to quote Professor Ripley in the introduction of the first important attempt to make an economic case book, "is to further the interests of sound economic teaching, with special reference to the study of concrete problems of great public and private interest." By placing the best articles on specific points in the hands of every student the pressure upon library facilities is considerably relieved and the teaching broadened by the larger and more intimate use of materials. However, the relation of the mate-

rial to the points under consideration can best be shown thru the medium of the syllabus. No attempt has been made thus far to do for elementary economics what Professor Ripley has done for corporation finance and sociology. The instructor in elementary economics, consequently, is left to the devices of the reserve shelf and the loan library unless the publisher comes to his rescue.

The case book can not in the nature of things grow with the increasing output of valuable economic literature. There is a limit to its size and cost, tho in the field of elementary economics there is seemingly no reason why the large demand should not make possible frequent editions of a case book. On the other hand there are many wasted opportunities to turn articles into reprints, which, when securable in such form, could be used for instruction purposes. Is there any reason why such a body as the American Economic Association should not thru its publication committee designate from time to time the articles that might be reduced to reprint form by the publishers of the different magazines devoted to economic matters? In this way the class work could be brought in touch with the material "hot from the press."

Practically all of the colleges in the table above resort to the division of classes into quiz sections where the numbers are too large for good instruction. The usual method is to place twenty-five or thirty students one day in the week under some instructor or upper-class man, assembling the different sections in a general lecture on the other two days of instruction. While this method draws a sharp distinction between lecturer and quizzer, and subjects the work of the lecturer to a severe test, there is, nevertheless, a loss in power of instruction in the transfer from lecturer to quiz master. Besides, the different sections are pretty sure to get on at different paces and with different degrees of efficiency. There is no way to avoid this difficulty except under a preceptorial system such as that now adopted by Princeton, which is a system impossible of institution by most colleges. Two modifications of the "quiz section" method may be made: one to reduce the size of sections to fifteen, and the other to place the sections more directly

under the personal supervision of the professor in charge of the course, with the expectation that he shall make a visit to every section at least four times during the semester. In this way alone can the work be kept even and fairly efficient.

While the quiz may give a fair indication of the grasp the student has of the lecture and textbook, the use of problems assigned at various intervals, not only shows the power of the student to think, but brings out strongly the deficiencies in expression and points of view. The use of problems as a teaching device is beset with two difficulties, one the proper selection of problems varied and interesting enough to hold the student, and the other, the task of marking the papers. At present there exists no recent book of problems. The Milne collection is based largely upon Mill and Ricardo, while Sumner's Problems do not lend themselves easily to use with the late textbooks. The instructor is, therefore, forced to make his own problems or collect them from newspapers and periodicals if he wishes to follow such methods of teaching. It is, however, not the lack of problems, but the task of marking papers that becomes a burden in the assignment of problems for student discussion. This task is usually left to graduate students and upper-class men who have gained some distinction in the elementary courses. As in the instance of the quiz method there may be a loss of efficiency since the average student, be he graduate or upper-class man, can not fill the place of the man who gives the course. The numerous duties of a professor of economics practically forestall any other method when the large classes are taken into consideration.

With great numbers of papers business methods force themselves into the instruction as against possible confusion in receiving, marking, crediting, and delivering papers. Punctual presentation of papers can only be secured by stamping every paper with a date stamp upon the day of its receipt and making a record in case of the delay. One lesson college instructors should teach, as an incident of instruction, is that of punctual meeting of intellectual obligations. To do this requires, where there are large classes, a device like that suggested above; it, moreover, has the advantage of keeping

the machinery of instruction up to the requirements made upon it.

To secure something more than a mark as a criticism of a paper requires the great labor of writing on each paper some statement of the deficiencies of the student's discussion of the assigned problem. To facilitate this work and at the same time meet some of the needs of criticism requires a device that has been used in one institution with some satisfaction. Each paper is stamped with a rubber stamp, reading as follows:

Mark.....
Paper deficient in spelling.....
English.....
Organization.....
Accuracy of facts and statements....
Discussion.....
Late.....

By checking the deficiencies of the paper in the places provided the instructor is able to convey a rather definite idea of what he regards as the defects of the student's paper. This system followed by a weekly discussion of the problems assigned during the previous seven days brings the papers to a well-rounded conclusion and gives the student an opportunity to modify or fortify his point of view.

It is desirable that the student should be brought in contact with as many economic phases as possible during the time he is pursuing the courses in economics. To this end the organization of a department club has proven of great value. The students of the previous year form a nucleus for the club, which is enlarged late in the fall by the addition of the students who have evinced some interest in the subject. The programs presented during the year may consist of discussions of articles from the current magazines or the study of some widely known book bearing upon economic matters. Examples of books well suited to such study are George's *Progress and poverty*; Sumner's *What social classes owe to each*

other; Ely's *Evolution of industrial society*; or Hobson's *Evolution of modern capitalism*. A word concerning procedure will suffice for this feature of instruction. An assignment of a chapter to one student to present and to the others for reading, provides a leader and gives a basis of discussion. The right direction of the work of the club necessitates the presence of the instructor if he wishes to dovetail the discussions into the courses of instruction.

Aside from books the student may be brought into the wider knowledge of industrial organization by listening to lectures given by men who are engaged in the world of affairs. Such lectures can be conducted under the auspices of the department better than under any other, and made to conform with the lines of instruction by selecting speaker and subject. In nearly every city or town can be found men who could give interesting views relative to their business that are pretty sure to be of assistance to the student of economics.

Over all of these phases of instruction the head of a department should extend his jurisdiction. By watching them carefully thru reports and observations he will be able to modify and suggest keeping before students, instructors, and lecturers the objects of economic instruction. Live instruction in a subject like economics is only possible thru constant adjustment and rearrangement, and it may be added that dead instruction in such subjects is almost worse than none at all. Thus far the professor of political economy has had but little aid from the business world in bringing instruction and practise closely together. In the long run, it may be said that full understanding of the scientific principles of industrial organization will be the basis of national commercial success. To this end it is the duty of the departments of economics in our various colleges and universities to contribute.

It has, however, been taken for granted that the students of present-day colleges have had some association with and some knowledge of the facts of an industrial society. This was true of the men and women of an earlier and simpler period of organization, but today the student, in the many demands made upon him by the school system, comes but little in con-

tact with industrial conditions. To begin the inculcation of principles before knowledge of the simpler facts is to increase the confusion and multiply the vagueness of economic ideas in the mind of the student. The teaching economist is thus face to face with a dilemma—how to make his course interesting, successful, and productive of principles and yet at the same time make the principles usable for practical purposes. The student without knowledge of the facts was pretty sure to make no use at all of the principles, and dumfound his instructor in later years as being an impractical teacher, because he, the student, did not learn the facts of industrial organization. College courses must deal with facts as they are, not as they were. This means the multiplying of descriptive courses for under-class men and the elimination of a great deal of the theory that has been presented in the earlier years of academic work. It means further that textbooks must be condensed, rather than expanded, and supplemented by case books and reprints which deal with things as they are. It means also that the student must be brought into touch with the wider phases of the industrial organization, hearing the views of, and coming in contact with, the men who are of the organization. It means that high schools should teach the facts of growth and not theory so as to prepare students for the advanced work of the colleges. And finally it may be said that there is no royal road to successful teaching of economics except by organization, constant study of the existing economic organization, and a full realization of the facts and meaning of industry.

How far colleges are meeting these conditions is difficult to say, but there can be no doubt upon the point that too much stress is laid upon the science of economics as a thing in itself rather than upon the solution of problems; upon fine distinctions rather than upon vital differences. Only as we get to the real industrial society can the teaching and the results of the teaching bring the confidence of the business community which the economist, in the dawn of a golden day, hopes to secure and, having it, to guide.

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V

THE MÜLLER-WALLE SCHOOL OF LIP-READING

There are at the present time 132 recognized schools, or institutions, in the United States, devoted to teaching the deaf-mutes and the semi-mutes speech and speech-reading. The work in these institutions is chiefly devoted to the needs of children who have no knowledge of speech, or those who are rapidly losing control of the organs of speech, owing to extreme deafness. The purpose of these schools is to awaken in the child a consciousness of the power of speech, an appreciation that such power lies latent in him, and later a knowledge of how to use the power, or how to speak, and with this is taught speech-reading.

Statistics show the wonderful results already achieved along these lines, and the possibilities that the future holds for our deaf who need no longer be dumb.

Altho so many institutions exist for the betterment of the conditions of the deaf-mutes, there are few institutions or schools in this country devoted to teaching speech-reading to the adult deaf. Yet the deaf, or those whom we may call persons "hard-of-hearing" in distinction to the deaf-mute class, are growing more and more numerous, and with this increase there is a corresponding need for some means by which they can overcome their difficulty.

The steps required to teach a deaf-mute to understand what is said, and those necessary in teaching the hard-of-hearing adult are, in the nature of the capacities of the respective pupils, widely different.

The deaf-mutes attain their ability to read speech largely thru analyzing the positions that the organs of speech take in their own mouths when producing certain sounds. The characteristic positions of the vowels are easily manifest

in the external organs of speech. The consonants, however, especially the dentals and palatals, are less easily seen; and as deaf-mutes are taught to distinguish these from the position of the tongue, it is necessary that the speaker open his mouth wide, in order that the student can see the positions and understand what is said. Such a method of speech, altho permissible, can hardly be called conversation; and in public places persons talking in this way at once attract attention.

In the case of one who has become deaf after learning to speak, and having a command of language, such analysis of speech as is required in the case of the deaf and dumb can be of little real benefit; for in normal speech the positions are hardly perceptible, even to the trained eye, for the passing from one position to another is so rapid as to produce continuous movements of the organs of speech following one another in rapid succession. The hard-of-hearing adult wishes to understand normal speech, and for that, these primary lessons are unnecessary, and in fact only tend to retard the progress of the pupil; for if he understands clearly the difference between position and movement, and this can easily be shown in one lesson, he can concentrate all his energies on following the movements intelligently. With an intelligent following of these movements, he will never fail in analyzing the position, if he be asked to do so.

Thus the teacher of the hard-of-hearing adult begins his instruction at a point which the teacher of the deaf-mutes must struggle hard to reach; and the pupil, being only hard-of-hearing, and having a perfect command of speech, requires very different training in order to become a speech-reader, from the deaf-mute child.

This training is so different, and the methods pursued are so different that many teachers of the hard-of-hearing call their instruction "lip-reading," to distinguish it from the methods used by the teachers of the deaf and dumb.

The training in lip-reading deals chiefly with the characteristic movements of the external organs of speech. These movements are so well defined, that comparatively little practise is required, to enable the pupil to follow them and interpret

them intelligently, even without hearing the speech tones which follow.

In 1886 Julius Müller-Walle of Berlin founded a school for lip-reading in Hamburg, which is devoted to the needs of the adult deaf. In 1893 the school was opened in Berlin.

After many years devoted to teaching the deaf and dumb, Herr Müller-Walle decided to direct all his attention to further advancements in the mastery of the art of lip-reading for those who have become deaf in adult life, feeling that the methods then in use brought far from satisfactory results to those who commanded a full knowledge of speech. Built upon the foundation that was left from the knowledge and experience accumulated from the early teachers, and adding to this, material gained from years of personal study and experience, he founded a school which today is not only well established in Germany, but also in other European countries and the United States.

After spending five semesters at the University of Heidelberg, in the study of psychology and other branches, to better fit him for his work, Herr Müller-Walle wrote his textbook, *Das Absehen der Schwerhörigen zur Erlernung der Kunst, das Gesprochene vom Munde abzulesen*, which was published in Hamburg in 1893 and has reached wide circulation in Europe, having also been translated into English.

Gifted with an unusual ability to teach, coupled with untiring patience and enthusiasm, he began traveling from city to city, announcing his intention of opening courses several weeks before his arrival in the respective cities. His classes were always well attended, and it was not many years before persons in other countries than Germany sought the instruction given at his school. Soon such men as Professor Dr. Lucae of Berlin and Professor Dr. Bezold of Munich began to take an interest in his work.

In 1902 the method was introduced into the United States by Martha E. Bruhn, a graduate of the school in Berlin and for some time assistant teacher to Herr Müller-Walle in Germany. The method has been successfully taught here for a number of years. The school is in Boston at Pierce

Building, Copley Square, where trained teachers are being sent out to present the method elsewhere than in Massachusetts.¹

A few words descriptive of the method may prove of interest. The lessons begin with a study of the vowels in easy combination, then a careful study of short sentences; and gradually longer sentences and stories. As the pupils progress they are encouraged to practise with one another, and friends are invited to visit the classes and to repeat the exercises, thus giving variety to the lessons, which have to be rehearsed over and over again. It is the special aim of the school to make the instruction as broad and the practise as varied as possible, that the pupils, having completed the course, may not find themselves embarrassed when meeting strangers.

Altho the time that the pupils may spend at the school, practising with one another, or watching others practise, is practically unlimited, yet every pupil has a certain time allotted to him for individual instruction, under one of the trained teachers.

As each new sound or combination of sounds must be thoroly understood, a careful analysis is given the pupil, and after the movement or movements of which the sound is composed have been thoroly explained the teacher practises these over and over again in every possible combination, until the pupil's eye becomes familiar with them. Thus in practising new movements, over and over, in combination with others that have been mastered in previous lessons, the pupil progresses, memorizing more and more of the movements, adding to his knowledge just as in learning a language one adds more and more words to one's vocabulary.

The following is quoted from a lecture given before the Medical Association in Stuttgart, by Professor Dr. A. Denning: "In an introduction to a book on lip-reading for the deaf, and in the *Weekly Medical* paper of Munich, 1905, Professor Dr. Lucae, aurist and director of the Royal University Ear Clinic in Berlin, calls attention to the art of read-

¹ Persons wishing to ascertain the standing of the schools may write to The Volta Bureau, Washington, D. C.

ing speech from the lips. Many an adult who has become deaf has sought instruction either in the schools for deaf-mutes, or from teachers in such schools. But, on the whole, the results obtained there are not satisfactory. About ten years ago, Mr. Julius Müller-Walle, a former teacher of deaf-mutes in Berlin, published a method adapted to the needs of the adult deaf. . . .

"Mr. Müller-Walle . . . recently had a class of twenty-eight pupils in Stuttgart. As I was interested in the subject I visited the classes almost daily. In that way I obtained a thoro insight into the method and the progress of the individual pupils. . . . As to the results obtained, I must confess that my expectations were far exceeded. In the first few lessons the pupils followed the lips of the speaker perfectly, and I noted the expression of satisfaction on their faces. Speaking of individual cases I would say that those who were totally deaf, or had hitherto used an ear-trumpet, made the most rapid progress, as they were not distracted by sounds. But, on the other hand, those who still hear the sound of the voice learn to follow so easily that they often remark, 'I heard what has just been said,' or, 'My hearing has greatly improved lately.' But upon talking with such a person in the dark, one noticed immediately that they had been deceived. Their hearing had really not improved, but they read the lips without knowing it.

"As a rule the course lasts six weeks. I was convinced that many could learn enough in that time to read well. Some require a little more time. However, a good foundation is laid in that time. It is like learning a foreign language, the powers of comprehension, energy, and, above all, practise, must be taken into consideration. The latter may be found in daily life. It is like learning a foreign language at home, then going to the respective country to perfect one's self in hearing and speaking the language. Thus the deaf person learns daily to read more and more. And when the first feeling of reserve has been overcome and the pupil has confidence in himself, he will be surprized to see how rapid the progress is."

MILDRED KENNEDY

VI

THE EDUCATION OF WOMEN IN FRANCE

The French have recently celebrated the twenty-fifth anniversary of the foundation of their girls' high schools.

The first French lycée for girls was established at Montpellier by decree of January 10, 1882. The law providing for these establishments was past in 1880. There are now in all 171 institutions of secondary education for girls with 34,262 students.

The celebration of the anniversary of this epoch-making foundation of the Third Republic was carried on in the usual style of French official ceremonies. All the young ladies of the Paris secondary schools gathered on May 17 in the gigantic amphitheater of the Trocadero, the Moorish monument that rises on the banks of the Seine, a relic of the world's fair of 1878, now used for state occasions. Speeches were delivered by the promoter of the bill that established secondary schools, M. Camille Sée, by the ever-present and always earnest and enthusiastic reformer, M. Ernest Lavisse, and by the minister of public instruction, M. Briand. A musical program was rendered and a chorus of 800 girls, presided over by the composer, Gabriel Pierné, sang pieces by Rameau and by Saint-Saëns.

The following day the foundation of the Superior Normal School of Sèvres, instituted in 1881 to prepare secondary teachers, was likewise commemorated.

Thus in speeches and in songs the work of the Third Republic for the higher education of women was duly praised. It deserved to be. The Third Republic is responsible for whatever has been done in France to give women something more than a primary education; and a great deal has been done.

Up to the Revolution the large majority of French girls of the middle class were brought up in the convents. The clergy

had the monopoly of all public instruction. Naturally it would want to control the instruction of women. All knowledge that went to them past thru the church, and that was precious little.

The notion prevalent at that time about feminine education is picturesquely exprest in the famous tirade of one of Molière's characters, Chrysale. This Paris bourgeois held that a woman knows enough when she can distinguish a doublet from a pair of breeches and prepare wholesome food for her husband. The highest ambition of men of his kind was to make of their daughters good housekeepers and obedient wives. In former times, as Chrysale says, women did not read, but they lived well. Their household was the only subject of their learned conversations, and for books they had only a thimble, thread, and needle, with which they worked at their daughters' trousseaux.

Hence the ignorance of the mass of women was appalling. During the first years of the eighteenth century 77 to 94 per cent. could not sign their names. In a little village of the Vosges between 1719 and 1730, 32 out of 36 marriage certificates were without the signature of the wife because she could not write.

Some of the letters of ladies of the nobility and of the court which have come down to us, such as those of Mlle. de Montpensier and of Mme. de Montespan, reveal a spelling which would make a country girl of today blush for shame.

Molière, who more than any one else took an interest in the problem of the education of women, has given us in *L'École des femmes* a sketch of a young lady of that time, Agnès, whose very name has become in the French language synonymous with innocence and foolishness. The mental horizon of Agnès is limited by the trivial interests of her house and the doings of a little cat.

The man, an old man, who loves and expects to marry her, meets her, and the following spirited conversation ensues:

Arnolphe—It is fine walking.

Agnès—Very fine.

Arnolphe—What a beautiful day!

Agnès—Very beautiful.

Arnolphe—What's the news?

Agnès—The little cat is dead.

Of course there were even at that time some women of wide and deep culture. The select few that got education got it with a vengeance. At the time of the Renaissance some women knew Hebrew, Greek, and Latin. During the seventeenth century Spanish and Italian were the fashion. Mme. de Sévigné learned Latin, Italian, and Spanish; her daughter was a student of Descartes; her granddaughter read Ovid and Lucian. One of the first translators and popularizers of Homer in France was a woman, Mme. Dacier, and all thru the eighteenth century women were the center of the intellectual life, and around them gathered the men who were then leading the world.

The very fact that Molière had to write two plays on the subject of the pedantry of women, one entitled *Les précieuses ridicules*, and another, *Les femmes savantes*, shows that there was an excess in this direction also.

But the excess was practically all in the other direction. What little education was given to the girls was left to the caprice of the mothers and the discretion of the nuns.

The convents were then the only establishments where girls of the French bourgeoisie and nobility were educated. It is still true at this writing for a large portion of them. Two orders of nuns made a specialty of education: the Ursuline sisters, founded in 1560, and the Augustine sisters, founded in 1650.

The convent was used by frivolous mothers who wanted to rid themselves of their children. Girls entered these somber prisons when they were mere babies. Mme. Guyon, who became known as the leader of the mystic movement, called Quietism, entered the convent at two and a half years of age; the daughter of Mme. de Grignan entered at five and a half. Mme. de Sévigné bemoans the fate of her granddaughter: "My heart is broken at the thought of my darling little granddaughter! now she is in jail!"

This education of "bars and locked doors" did not appeal

very strongly to the more enlightened members of society, even then. We have the testimony of several, among the most orthodox. "No education can be given in the convent, neither on religion, about which our sisters know very little, nor on any other subject," said Mme. de Sévigné.

A Jesuit father, the confessor of Louis XIV., le père La Chaise, thought that "girls would be brought up better by people that belonged to the world."

Mme. de Maintenon, who had started a school of her own for daughters of poor noblemen, St. Cyr, spoke in most disrespectful terms of some of her rivals: "The Ursuline sisters are the most foolish creatures that I have ever seen."

The education given in convents has always been criticized by the very men who have known it best. Fénelon stated that girls taken out of society and brought up in an artificial atmosphere received a false and romantic idea of the world, that resulted, when they were brought in touch with it, in misunderstandings and disappointments. A well-known bishop of the nineteenth century, Mgr. Dupanloup, complained likewise that the education received in those houses was "light, frivolous, superficial, when it was not false."

This seclusion gave to the girls not merely foolish notions about life, but also a distorted idea about the species man. Victor Hugo, in a charming chapter of *Les Misérables*, in which he describes the mysterious and quiet convent of Petit-Picpus, tells of the prudery of the dear sisters and how they suppress the dangerous word "amour" in all the poetry put in the hands of the pupils, replacing it, for the rime, by "tambour," which can hardly pass for a synonym. At St. Cyr Racine's *Andromaque* was played with such zest and conviction by the young ladies that Mme. de Maintenon had to ask Racine to write a play from which love intrigues would be debarred. Indeed this segregated, unnatural, prudish education filled the imaginations of the young ladies with weird notions. To them man was a distant and enigmatic being endowed with magic powers, who would some day call for them and initiate them into that new and mysterious world which to them was so far away. They would

fall in love with the old priest, cut for a keepsake the strings of his hat like the little Antoinette in Pailleron's *L'Étincelle*, or lend to the old decrepit gardener romantic attractions and irresistible charms.

The instruction offered in those convents was meager—some catechism, reading, writing, and, on Sundays, some arithmetic. Stress was laid on manners and on the so-called social accomplishments.

Erasmus made sport of the girls of his time. Their education consisted only in learning how to make a courtesy, hold their arms and smile; they were taught also not to open their mouths too wide when they laughed and not to eat too much. Having mastered that, "they were ready for matrimony."

Even those few who were advocates of a more thorough education for women were modest in their demands. Fénelon, for instance, who, in 1687, wrote *L'Éducation des filles*, an admirable treatise full of delicate observations that have lost none of their timeliness, said: "A girl ought to know the grammar and be accustomed, without affectation, not to mistake one tense for another." Rousseau is satisfied if his pupil knows what is required for the management of her household, some reading, and a little arithmetic in order not to be cheated by the cook.

Napoleon, who had his ideas on this subject as on all others, when he founded the school of the Legion of Honor for the daughters of officers, laid out a course of instruction which included spelling, some geography and history, no languages, and just enough physics to avoid "crass ignorance and stupid superstition."

Some enlightened women at times complained bitterly of this superficial education given to girls merely in view of pleasing man. Mlle. de Scudéry states that ten years are devoted to the study of dancing, which can be practised only during five or six years, while nothing is done to make women talk more brilliantly or act more sensibly, altho they will need to know that all their lives.

Mme. de Lambert complains likewise that women's scanty training leaves them helpless. The only thing expected of

them "is that they be beautiful. The rest does not count." "Our coquetry is all that is left us," says one of Marivaux's characters, "our parents get rid of us, only thanks to that."

It is with the modern régime that education of women has become the concern of the state. At the time of the Revolution the philosopher Condorcet laid down the principles that were to govern all liberal governments. He showed that from the standpoint of the mother, as well as from that of the husband and the child, the state has a deep interest in giving to women all the education that they are entitled to.

Most pedagogs, moralists, and statesmen of the nineteenth century were therefore agreed that no task was more urgent than to prepare women to be efficient heads of families, capable of taking their husbands' places and directing intelligently the education of their children.

The problem that was agitated was the quantity of science that a woman ought to absorb. The psychologists who have, in French universities, made a specialty of this subject, have come to the conclusion that while women are not inferior to men they are different, physically and mentally. As a rule they are smaller, have a lighter weight, are blest with a less elaborate digestive apparatus than man. Their sense of smell is not so acute, their sensibility is keener, and they have a stronger faculty than man—so all women will testify—for enduring physical pain.

As to her psychological characteristics, this is what the late Henri Marion, professor at the Sorbonne, and a delicate and friendly judge, has to say: "The mind of woman, marvelously supple, is especially plastic and imitative: she assimilates the concrete and masters details very fast, but, like children, hates abstractions, generalizes at random, and thinks only in individual cases."

In the many controversies that have been waged around that most vexed problem, one man has more clearly than any other expressed the old-fashioned doctrine that women should be women, especially in their studies. That is Joseph de Maistre, a Savoyard, who, at the beginning of the nineteenth

century represented, both in politics and religion, ideas that, if anything, were distinctly not revolutionary. He was a believer in absolutism and theocracy. Ambassador at St. Petersburg, he wrote to his daughter, who had asked him for his opinion about the aptitude of women to science. His views, characteristic rather than convincing, are amusingly developed in a clever letter from which is culled the following passage: "Women have produced no masterpiece in any art. They have made neither the *Iliad* nor the *Æneid*, neither *Jerusalem delivered* nor *Athalie* (Racine), neither *Rodogune* (Corneille) nor *The Misanthrope* and *Tartuffe* (Molière) nor *Le Joueur* (Regnard) nor the Pantheon nor St. Peter's nor the Venus de' Medici nor the Apollo Belvedere nor Perseus nor the *Principia* (Newton) nor *Le discours sur l'histoire universelle* (Bossuet) nor *Télémaque* (Fénelon). They have invented neither algebra nor the telescope, nor the achromatic lens nor the fire pump nor the weaving machine, etc., but they have done some things greater than that: it is on their knees that is formed what is most excellent in the world: an honest man and an honest woman." He goes on to show the danger for a woman of offending men by being more clever than they. He does not wish girls to be absolutely ignorant. For instance he does not want them "to believe that Peking is in France or that Alexander the Great married the daughter of Louis XIV." But in their own interest let them beware of pedantry!

"A coquettish woman is easier to marry than a scholarly woman: for to marry a scholar one must be without pride, which is very rare, but to marry a coquettish woman one must be a fool, which is very common."

These entertaining paradoxes fortunately did not interfere with the plans of the men who, in our times, have thought that women are entitled to prepare themselves for a nobler destiny than that of winning the favor of some "fool."

All thru the nineteenth century attempts at creating undenominational secondary schools in opposition to the convents have been made with varying success by private initiative.

It is only at the end of the Second Empire that we find the state trying to complete, to a certain extent, the work started

by Guizot when, in 1833, he created in all the larger villages of France primary schools for women as well as men. Napoleon III had then for minister of public instruction a scholar of democratic ideals and of a free mind. His name is a household word wherever history is studied, for he has written the textbooks in which several generations have learned what they know: Victor Duruy.

Duruy, who was then revolutionizing the boys' secondary schools, wrote in 1867 a letter to the emperor in which he mapped out his plan for the creation of girls' schools. "Let us think of organizing also the education of girls, for a part of our present troubles comes from the fact that we have placed their education in the hands of people who belong neither to their time nor to their country." Hence he created with a staff borrowed from the boys' high schools courses for young ladies entitled "*Cours secondaires*," which met with a violent hostility on the part of a section of the public and were considered by some men as an attempt at competition with denominational schools. The "*Cours secondaires*," however, lasted only until the war of 1870.

It was left to the Third Republic to complete this work and give to women a definite and complete system of secondary schools such as is enjoyed by men.

This was done by the law of December 21, 1880, which preceded the famous laws of 1881 and 1882 on compulsory undenominational and gratuitous education that are by common consent the most important achievement of the present régime.

This law establishing high schools for girls on the model of the men's high schools without, however, the unpopular "*internat*" feature which has so many disadvantages, was completed by the decrees of July 28, 1881, and January 16, 1882, fixing the studies to be pursued.

The course of instruction in these schools that have now been running for twenty-five years comprizes five classes divided into two periods. The first period is composed of three years and all subjects are compulsory; the second period is composed of two years and some of the courses are elective.

The age of the pupil varies from twelve to seventeen, and

the degree given at the end of the course is called "Diploma of secondary schools."

The studies carried on in these secondary schools are no child's play. The last schedule of hours made up in 1897, which the writer has before him, gives for all the classes a minimum of twenty hours and for some a maximum of twenty-four.

Let us take, for instance, the program of the second year. The girls are thirteen years old. Their schedule is composed of twenty and a half hours divided as follows:

French language and literature	5	hours
Modern languages	3	"
History	2	"
Geography	1	"
Mathematics	2	"
Natural history	1	"
Sewing	2	"
Drawing	2	"
Music	1	"
Gymnastics	1	"

The subjects taught cover a pretty wide range. The history is that of the seventeenth and eighteenth centuries. It is not restricted to France. One of the heads of chapters is: "Formation of the United States: Franklin, Washington, La Fayette." The geography covers the study of Europe and Asia.

Natural history comprizes geology, minerals, the rocks that enter into the formation of the soil, contemporary geological phenomena such as rain, dunes, destructive action of water, glaciers, volcanoes. It covers also elements of botany, with special attention to the principal plants of France and the distribution of flora on the surface of the globe. As for the sewing, there is a special program which covers everything from knitting and the cutting-out of family linen to the mending of socks.

The same pupils, at the age of thirteen, who are still beginners in English, translate Ruskin's *King of the Golden River*, Kingsley's *Water babies*, and *Robinson Crusoe*.

Let us see now what is expected of a girl of seventeen in the fifth year of her course. Thirteen and one-half hours of

the twenty-six are compulsory, ten and one-half are elective. Among the compulsory subjects are psychology, applied to ethics and pedagogy, history, modern languages, elements of law, physics and chemistry, anatomy, physiology and hygiene. The elective courses are mathematics, sewing, drawing, gymnastics, music, and a complementary modern language.

The syllabus of the psychology course comes under the headings of (1) conscience, (2) different aspects of the life of the soul, (3) the head, (4) the character, (5) the mind. Some of the English texts are *The Tempest*, *Paradise lost*, *Enoch Arden*, *Silas Marner*, *Christmas carol*, *The Rivals*.

History comprizes a general history of the great movements of civilization from the fifteenth century down to the present time, with a general survey of the political situation of the world at the beginning of the twentieth century.

The elements of common law cover information dealing with the family, property, successions, wills, contracts, some commercial and administrative law.

Cosmography, chemistry, solid geometry, magnetism are likewise studied in the last class.

The only subjects that the French dispense with in the education of women are Latin and Greek. In the early programs some Latin had been offered in the last two years. Experience has shown that, limited to such a short time, this course could not, in the words of a special committee, "give useful results."

It is only in 1897, after fifteen years of experience, that the Superior Council of Public Instruction, which is in charge of the shaping of the courses, proposed that the amount of science offered to young women should be reduced, more time given to foreign languages and literatures, and the work grouped in the morning so as to leave the afternoons free and not force the girls to make the trip four times from their home to the school.

The policy had been at first to imitate too closely the boys' high schools and to crowd into those five years all human knowledge and a few things besides. The mistake appeared very soon when girls were seen to throw themselves into their

work with that ardor and indiscreet enthusiasm characteristic of their sex.

Not merely are the students industrious to the point of over-work, but their teachers, young women prepared in the Normal School of Sèvres, master their subjects with an accuracy and science that put men to shame. Women have indeed shown remarkable aptitude in all branches of education. In examinations of the primary grade, where the subjects are the same for men teachers and women teachers, we find that the percentage of men that pass is much smaller than of women. For instance, out of 148 men that tried the "brevet supérieur" (degree required to teach in public schools) 26 passed, while out of 95 women that tried for the same examination 30 were successful.

The Normal School of Sèvres takes only the very best among the candidates, and the examinations at the entrance as well as at the end of the course are very severe.

Here is a subject offered in history for the students that try the literary entrance examination: "Italy during the Italian wars 1494-1517. Miseries of her politics and greatness of her civilization."

The same candidates, most of whom were not specializing in the science, had to treat the following geographical subject: "Define, with characteristic examples, the principal kinds of lakes: determine the essential conditions of relief and climate that influence their nature: describe summarily the great lake regions of the globe." Here we are far—perhaps too far—from the schedule of the seventeenth century girls, with the catechism, the lessons in dancing and good manners.

The success of these state educational establishments has been slow. In 1881 there was only one lycée, in 1886 there were sixteen, in 1896 thirty-seven. In 1881 there were three colleges (practically the same sort of school as the lycée), in 1906 there were fifty-six. The third category of these schools is made of what is called "secondary lecture courses (cours secondaires)," which do not have so complete an equipment of teachers and so rigorous a schedule. They were one hundred in 1881, they were sixty-eight in 1906.

From 1200 pupils in 1881 the number of pupils has past to 34,262 in 1907. This gradual and rather slow progress has been obtained in the face of the strong hostility of a conservative and often reactionary public.

The old ideas of the seventeenth century bourgeois have still their hold on a large number of people of the middle class who think that a woman needs only know how to dance, dress according to the fashion, play the piano, and "make a bow."

The terror of pedantry spread by Molière's satire, which has affected even the most ardent defenders of feminine education, has likewise handicapped the growth of the new education. These announcements of courses, with all their sciences, history, psychology, languages, frightened many families whose sons were already burdened with encyclopedic courses of study.

And then the convents retained a large section of the so-called conservative clientèle, all the daughters of the nobility and practically the entire contingency of the wealthy middle class that apes the aristocracy. Snobbishness has counted more than anything else against the new schools. The complaint sometimes made that state officials patronized the boys' schools kept by religious communities is better founded in the case of women. It would not be difficult to find free-thinking and professedly anti-clerical politicians who, for social reasons, scorned for their daughters the schools that they officially supported.

To have succeeded against such odds is the best sign of the unquestioned scientific and pedagogical superiority of the state schools.

Without doubt they have in the enthusiasm of the first years overloaded with non-essentials the brains of their young pupils.

It is true also that like the rapid development of primary schools the success of secondary institutions has added to the large number of graduates that crowd and block today all the avenues that lead to women's professions and of whom a popular dramatic writer, M. Brieux, told the pathetic fate in the comedy of *Blanchette*.

And then again bookish instruction, mere learning are over-

emphasized in these French schools to the detriment of the sports, outdoor exercises, and other diversions that make the girls' colleges of the United States seem to the grinding, intense, and strenuous students of French lycées like the fairy-land of Tennyson's *Princess*.

But these excesses, natural accompaniments of a new experiment, will gradually be eliminated. And French women who have so long suffered from the tyranny of man's caprice, selfishness or cunning, have now, thanks to the liberalism of the French Republic, an equal opportunity to develop their minds and an equal right to the treasure of knowledge.

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VII

COMPARATIVE STUDY OF MINIMUM SALARY LEGISLATION

In the EDUCATIONAL REVIEW for January, 1908, the writer presented a historical and descriptive account of minimum salary legislation in the United States. The rapidly growing importance of this movement and the prominence it seems destined to acquire in the coming years were there set forth. The present study considers comparatively the questions of ends and values.

PURPOSE AND END

The chief concrete purposes which the minimum salary law is designed to serve are to promote the interests of education as a science and a profession, to place the compensation of teachers upon a more equitable and just basis relative to the requirements in preparation, ability, etc., demanded of them, to eliminate poor teaching from the public schools, and to establish the social position and influence of the teacher upon a higher plane in the interests of himself, the school, and society, by improving his financial status. Other specific motives of a like nature might be mentioned. It will be seen that these various motives point to two general ends. Tho it is intended to show that there is ultimately only one true general end of minimum salary legislation, these are given as the two chief ends commonly recognized and sought. They are (1) the raising of the minimum and general compensation of teachers and (2) the raising of the minimum and general standards of education. The former end is direct and immediate, the latter is mediate and more remote, tho none the less real. This suggests that the one may be only a means to the other, and this is ultimately the truth of the matter. Tho both ends are definitely

held in ordinary thought, nevertheless the raising of the minimum and general standards of education as a permanent effect is rationally the single important final end of the minimum salary law. This seems out of harmony with the views of many. There are those who consider the minimum salary law to be essentially little else than a means of placing the compensation of teachers, in the interests of justice and appreciation, on a par with that of other vocations requiring the equivalent in preparation, ability, and outlay, and without necessarily requiring of the teachers any return in values for the increase in compensation. The idea that the compensation of teachers be placed upon bases of justice, spiritual value of teachers' services, etc., and be more or less removed from the sordid influence of economic laws is frequently set forth in reputable educational publications. Such sentiments are believed to be more or less common among uninformed or unthinking teachers and friends of teachers who have become specially interested in the matter. The minimum salary law is frequently considered a legal means of realizing ideas of this sort. This view, the writer believes, is radically wrong. Then again there are those who regard both the above as rational and independent ends. This view is believed to be essentially incorrect also. To be sure, the raising of teachers' compensation is an end, but not an end-in-itself; it is an end in the sense of being a convenient and efficient means to the great end of raising the standard of education. As a rational and ultimate end its importance is slight. An endeavor will be made to establish the validity of this position.

The compensation of teachers is as truly determined by the economic law of demand and supply as is that of any other body of workers. Furthermore the conditions of competition affecting teachers are normal. Neither thru ignorance nor poverty are teachers unable to look after their own interests with normal adequacy, nor are they indisposed to do so because of indolence. Also society has formed no combine or understanding to impose upon teachers or to discriminate against them. The minimum salary law can really have little or no effect upon the social and economic forces which operate to

make the salaries of teachers low as compared with those paid for equivalent services in other vocations. It is not the purpose of this study to consider these forces. Suffice it to say that teachers' salaries are relatively low simply because the supply of teaching services is for different reasons relatively large." (For some of these reasons see "Salaries of teachers" by John B. Clark, *Columbia University quarterly*, 1899, I, p. 116 ff.)

Economic law requires that in general individual teachers must correspondingly improve if they are to reap any substantial and permanent financial benefits from the working of the minimum salary law. When a good law of this kind goes into effect the obligatory advance in salaries results under normal conditions in a rapid rise in the qualifications demanded in licensing teachers by superintendents and boards of examiners and in the rapid development of further demands on the part of school boards and local superintendents and principals for the services of better teachers. At the same time the increase in compensation begins to draw better prepared and more capable individuals into the teaching profession to meet these demands. Part of the number come from outside the limits of the state. Thus there is inevitably a rapid shifting and changing of the personnel and qualifications of the teaching body. Poor teachers who fail to make further preparation are eliminated and better qualified ones occupy their places. Thus, far from making those teachers whose salaries are conspicuously below the established minimum passive and continuous recipients of substantial increases in salary as a mark of the state's appreciation of their services, the minimum salary law rather proceeds to put such teachers out of business. (Compare "Salaries of teachers" by John B. Clark, *Columbia University quarterly*, 1899, I, p. 119.) Of course these changes do not occur suddenly; there must be a period of readjustment of economic forces. Under unusually imperfect economic conditions this period may be expected to extend thru many years. And during the readjustment, whether long or short, some teachers will be passive recipients of increases in compensation, but this will not continue indefinitely. After economic condi-

tions have been fully readjusted, it will be found that a rise in the standard of teaching has occurred corresponding to the rise in salaries, and the compensation of a given grade of teachers will not be materially higher than it was previously. That many individual teachers do continue consistently to receive much better salaries after a minimum salary law goes into effect can not be denied. This, however, is only an indication of one, or possibly both, of the two following things. In every case either the teacher has improved or the action of economic forces has been thwarted. The latter explanation seldom has much validity under correct conditions of competition. In general these teachers are those who would have improved and gained higher salaries if no such law had been enacted. Moreover, improvement in salary in itself is not infrequently a potent stimulus to improvement in services. Hence the minimum salary law is a means of raising the compensation of teachers only absolutely, not relatively. As a means of improving salaries in this sense a good minimum salary law is very efficient and convenient. It is direct and quick in its effects, and it can not be evaded or ignored. In fact a more direct and positive means for its purpose in this sense could not be devised. These virtues are shown in the action of the law affecting the teachers of New York City. (See *EDUCATIONAL REVIEW*, January, 1908, p. 18.)

It will be recalled that the raising of the minimum and general standards of education was designated as rationally the single important final end of the minimum salary law. Clearly if the preceding analysis has been correct such a law can have but a transient effect in materially raising the compensation of teachers relative to that of other wage-earners. And further, if a good law or series of laws is past, providing for the gradual establishment of a minimum salary or schedule, this transient effect will be very small. Thus the hopes of many teachers that such legislation will relieve the stringency of their financial condition and place their compensation upon a more just and equitable basis are doomed to disappointment within a brief time under normal and correct conditions. The motives of gaining personal advantage and of righting an

assumed injustice of widespread extent are impossible of permanent realization. This fact clearly removes the raising of salaries from rational consideration as a true and final end, and makes it but a means to the raising of the standard of education. There are no other important motives for the enactment of minimum salary legislation. That the raising of educational standards is readily and effectively attained by this means is apparent from the preceding discussion. Thus it is the only important final end sought thru the minimum salary law which it is possible to realize, and so the only rational one. This is after all the great consideration.

SUBSTITUTES FOR THE MINIMUM SALARY LAW

It is clear that the minimum salary law improves the standard of education directly and chiefly on the side of teaching services, a most important and vital side. There are other means, however, of accomplishing this result, and the absolute rise in salaries is invariably concomitant in each case, a further evidence of the fact that a tolerably definite relation obtains between rate of compensation and quality of teaching which can not be arbitrarily set aside. A consideration of the relative value with respect to the minimum salary law of the other means referred to for improving the standard of teaching seems to be demanded in view of the present marked tendency to advance along this line.

There are two other means which seem of sufficient importance to warrant extended consideration in this connection. They are (1) the enlightenment of the general public along the lines of teaching qualifications and services from the standpoint of educational science and (2) the establishment by and under central authority of higher standards of qualifications in licensing teachers.

The former of these means, the enlightenment of the general public along the lines indicated, is in theory the ideal method for raising the standard of education on the teaching side and maintaining the vantage ground gained, tho under present conditions there is small hope for adequate relief from this quarter.

This plan is ideal because it secures the desired end thru the free and voluntary action of the people based on intelligent appreciation of educational values. Moreover if it were fully and properly carried out it would clearly be the most effective plan. There can be no doubt that the low ebb of education in many sections and localities manifested in the prevalence of inadequate content, poor and misdirected teaching, and poor salaries is in general fundamentally due to a woful lack of the popular enlightenment referred to. The method under consideration would attack the chief roots of the whole evil. If the true and correct content of school instruction were properly apprehended by the public mind, if the necessity of securing trained and capable teachers in order to have this content adequately offered were fully realized, and if the fact that the aphorism, "the best is always the cheapest," is as true with reference to teaching services as to other matters were equally well appreciated, the financial stringency more immediately responsible for the above conditions would largely disappear.

But however ideal the above plan may be in theory, it is very slow and difficult in practise. The inertia of custom, preconception, and ignorance is too great. The adequate enlightenment of the public along the lines indicated would require as a basis the further development of a public knowledge and appreciation of the fundamentals of educational science in general. Moreover, the burden of carrying on the campaign of edification, especially at first, must devolve largely upon the teaching profession itself, whose members are handicapped in such efforts because their own material interests are definitely involved and because they are regarded more or less by school officials and patrons as paid servants of the public will rather than molders of it. Thus when they undertake the task they find themselves unequal to it. From these reflections it is apparent that for the purposes of the present and a considerable period into the future the minimum salary law by reason of its virtues previously noted is a means of far more practical efficiency than that just presented in accomplishing the desired result, from both the standpoint of the state and that of the teacher.

The establishment by and under central authority of higher standards of qualifications in licensing teachers is also on theoretical grounds distinctly superior to the minimum salary law as a means of improving the standard of education on the teaching side. By central authority is meant the legislature, the state department of education, or the state board of examiners. The plan is likewise superior in practise under right conditions. These conditions are that the examination and certification of teachers, including the grading of papers, be by law entirely under the control and in the hands of state officials who are for the most part appointed and thus relatively independent. Satisfactory results from efforts by central authority to establish any considerable advance in standards can not be obtained so long as these matters are left in the hands of local authorities, for the exercise of local authority is dependent upon local public sentiment. Local officials whose views and practises are distinctly in advance of those of their constituents relative to matters so closely touching the financial interests of the latter in general can not be maintained in office, even if they can be placed there. This is a fact of experience widely exemplified. Laws may be enacted, decrees promulgated, and reforms urged, all designed to raise the requirements for certification qualitatively or quantitatively, but so long as the executive and judicial functions remain in local hands the people of the different localities are largely masters of the situation. Moreover uniformity of standard is impossible. State officials such as those described are, however, entirely independent of local opinion and influence and in considerable measure independent of general public sentiment thruout the state. Also they constitute a single body, their work is unitary and organized, and their standards are comparatively uniform.

The following are the chief points of superiority of this plan under these conditions over the minimum salary law. (1) It is more direct and quick in producing substantial effects. The minimum salary law acts indirectly and a period of transition or readjustment must ensue before its full benefits are realized, but the plan under present consideration raises the standard of

teaching directly and, within reasonable limits, at the pleasure of the controlling authority. (2) It secures incidentally the advantages of state uniformity in the certification of teachers when this does not already obtain. (3) It does not make it possible for some accidentally favored teachers to receive increased salaries for a time without rendering a corresponding return for the increase. The following are the chief points of inferiority in the plan. (1) It establishes standards that are variable, inconvenient, and troublesome because they can not be quantitatively measured or exprest with any definiteness. On the other hand the financial standards which the minimum salary law establishes are capable of the most exact quantitative measurement and expression, and hence they are thoroly convenient and facile in use. These of course are not standards of teaching, but their relations to the latter are so close that except during the period of transition referred to they are capable of fixing just as high, uniform, and satisfactory standards of education on the teaching side as the plan now before us. (2) It makes it necessary for some schools to close or some teachers to teach at inadequate salaries for a time. Just as a period of readjustment is necessary after the enactment of a minimum salary law for the standards of teaching to become adjusted to the new salaries, so in this case such a period is necessary for the rates of compensation to become adjusted to the new standards of qualifications for teachers. It is believed that under the preceding or similar conditions the advantages with respect to the minimum salary law of the plan under consideration are greater than the disadvantages. Still it is believed, as above suggested, that so far as efficiency is concerned a good minimum salary law would prove just as satisfactory in accomplishing the desired results relative to teaching standards after economic conditions have adjusted themselves to it. There would be some indefiniteness in the standards of teaching it is true, but this must always be the case under the other plan also owing to the unavoidable inexactness previously noted of the direct standards it establishes and to variation due to the changing of officials and opinions and of general public sentiment. If, however, the examination

and certification of teachers remain in the hands of local authorities, the minimum salary law is unconditionally much superior. The other plan under the conditions specified should in general have the preference. But its establishment on these terms is often impossible, and in such cases the minimum salary law would very wisely be substituted for it, if its enactment can be secured.

The system just described was recently put into operation in Iowa under the administration of state superintendent Riggs, and much of what has just been said is based upon or confirmed by experience under it. The innovation was made possible by the enactment of a law in 1906 by the Iowa General Assembly which provides for the examination and certification of all teachers in the state under the full and direct control of the state board of educational examiners. The standards of qualifications were at once raised, and gratifying results are being realized. The minimum and general levels of education and of teachers' salaries are rapidly rising all over the state. Similar systems are in successful operation in some other states.

THE TEACHERS' UNION IS NOT A SUBSTITUTE

It may seem that the consideration in this connection of another important means, the teachers' union or federation, has been omitted; but in the writer's view the minimum salary law and the teachers' union are not members of the same class. The fact that the two are frequently considered together and compared as such is regarded as one indication of the misapprehension of the true and ultimate purpose of the minimum salary law. In this discussion the teachers' union is understood to be primarily an organization for economic ends controlling the available supply of teaching services, the same in kind with the trade union. It is granted that such an organization would engage more or less in activities corresponding to those of the ordinary social and professional organizations of teachers, such as teachers' associations. Such activities, however, would be only secondary on the part of a genuine teachers'

union or federation, and the following remarks have no reference to them. The teachers' union as thus defined is capable, so far as it is successful, of raising the compensation of teachers relatively, and this is its real and final purpose. Moreover it has little if any capacity for raising the standards of teaching, and this is a very minor end. It seems that little argument should be necessary to establish these points. From the very nature of things it is clear that an organization which restricts in any considerable degree the available supply of any class of services is able to increase the rate of compensation for any given quantity and quality thereof, that is, to increase the rate of compensation relative to the requirements with which the workers must comply. It is also clear that this is the primary purpose of organized effort so to control the supply of services. Also an organization which designedly improves the compensation of teachers without reference to their services evidently is little capable of improving education on the teaching side. (Compare *The bargain theory of wages*, by John Davidson, pp. 263-269.) On the other hand, it has been shown that under correct conditions the minimum salary law can not raise teachers' salaries relatively except temporarily in some cases, that this is not its true and rational end, that it has abundant capacity for improving teaching standards, and that this is its true and ultimate end. Thus there is a radical difference between the minimum salary law and the teachers' union, and in the present connection they are not to be classed together. A comparison of the merits of the two in improving the teaching side of education would be somewhat like a discussion of the relative utility of ink and water for writing purposes.

However, the teachers' union is capable of serving a purpose of its own, as above indicated; but whether it is warrantable to employ it for that purpose is quite a different matter. However it may be with trade unions, the great majority of teachers and of people generally are convinced that under present conditions the teachers' union has no *raison d'être*. The extensive organization of such unions would tend to place teaching in the category of the trades, whereas its true place is among the

professions, and it is exceedingly important that it be so classed. Moreover the realization of a substantial and permanent increase in teachers' salaries thru economic pressure brought to bear by teachers' unions would entail long and continuous effort and much undesirable strife and bitterness, as the history of trade unions should teach, all of which would involve great educational waste and a lamentable sacrifice of the purity of educational ideals, which are sacred to true teachers. The teaching profession realizes these facts, and it recoils from the thought of financial gain on such conditions. The idea of material benefits which involve the shading of educational ideals is especially repugnant. The conspicuous absence of teachers' unions in our country is an indication of the willingness of teachers to sacrifice material benefits in the interests of education and humanity, is one indication of the type of character which is helping so much to mold the future of our people in the factories of citizenship thruout the land.

VALUE OF DIFFERENT FORMS

Let us next consider the merits of different forms of minimum salary legislation. The value of any form must evidently be regarded in the light of the purpose or need to which it ministers. If salaries and standards are in general satisfactory except that in certain cases, as in some rural districts, they have fallen to a conspicuously and woefully low point, the law fixing a single minimum salary serves the purpose; but if it is designed to tone up the public school system thruout, the law fixing a series of minimums must be employed. Satisfactory laws of this kind are hard to formulate on the basis of present knowledge and experience. There are two important types of such laws, those in which the series of minimum salaries is based upon grades of qualification alone and those in which it is based chiefly upon grades of position and work. The law of Indiana is an example of the former, that of New York City of the latter. (See EDUCATIONAL REVIEW, January, 1908, pp. 13 and 18.)

Of these two classes the latter is believed to be decidedly the

better. If the minimum salaries correspond to grades of qualification alone, the higher minimums of the series have comparatively small influence in improving educational standards; for all school authorities who so desire are left free to employ teachers of low or the lowest qualification. Theoretically, if the higher minimums closely correspond to the current relations between demand and supply with respect to the several grades of qualification, they can have little or no influence; if they are lower than the current rates of exchange, at any rate much lower, they are superfluous; while if they are higher, they are productive of more or less harm, rather than good. In the latter case the less efficient of the teachers who with comparative ease legally qualify for the higher salaries or none at all, especially at first, are punished for their ambition by being obliged to accept the latter alternative, and profiting by their experience many teachers of corresponding ability and standing who wish to continue teaching in the state are constrained to make concessions to the law of demand and supply and the public will by voluntarily remaining in a lower class than the one they are fitted for. Thus in the case of this type of law the public has pretty much its own way so far as the influence of the higher minimums on teaching standards is concerned. The lowest minimum has full effect, but the others do not necessarily have any material influence. This is believed to be the correct theory of the matter. From practical considerations, however, actual effects must fail of course to correspond exactly with the preceding theoretical ones. Tho the higher minimums are relatively ineffective, they can not have an evil effect except under the third of the three possible conditions noticed above. It is important to note that thus they might appear to be highly effective. The evil possibilities under this third condition, which is not likely to appear in seriously large proportions, are strikingly shown by the following words of state superintendent Cotton of Indiana with reference to the operation of the law of that state: "Many teachers request county superintendents to lower grades of licenses so the trustees will give them employment" (Fiftieth Anniversary Volume, N. E. A., 1906,

p. 137). It should be added that judging from indications at hand this evil does not seem to be at all serious in Indiana.

The other type of law, that in which the series of minimums is based chiefly upon grades of position and amount and character of work, has a distinct advantage over the preceding in the respect just considered. The higher minimums it establishes have practically the same influence as the lowest. Their influence can be escaped only by abolishing the positions, which usually can not be done and seldom will be done if the minimums are reasonable. Except in so far as legal provisions were made for permanent tenure of office during efficiency and good behavior such as are in force in New York City, it would be unwise for a state to grade the minimums on other bases than position, amount and nature of work, and success. If increments in salary were made dependent upon such other bases as length of service and sex, there would be a strong temptation in many cases, without the above legal provisions, to avoid paying the larger salaries by removing teachers and employing an undue number of one sex. Any general legal provisions of this kind by a state are of course out of the question at the present time. One apparent disadvantage of this type of law is its complexity and the difficulty of formulating it, but if the salaries were graded only upon the few bases just mentioned it might be made simple enough. Another apparent disadvantage is the fact that the minimum salaries are not based directly upon qualifications for teaching as in the case of the other law. From this it appears that their influence upon teaching standards is less effective. This evidently holds, however, only with respect to the lowest minimum if the preceding analysis of the effects of the higher minimums of the other law has been correct.

A few general advantageous features will be briefly indicated. The establishment of state aid for weak districts is a wise provision of a minimum salary law for some states. Indeed under certain conditions this is essential if the law is to be legally observed in all cases. Provisions for enforcement and penalties for failure to enforce are also good features, and obviously. Laws which direct that the minimum salary or schedule become

operative gradually are capable of greatly reducing the undesirable discrepancies characteristic of the period of readjustment previously referred to. Experience has shown, in Indiana for example (Fiftieth Anniversary Volume, N. E. A., 1906, p. 137), that the purpose of a minimum salary law is in some instances partially defeated by the device of shortening the school year. This may be prevented by the introduction of a suitable provision requiring a school year of reasonable length. In case the minimum salaries are designated by the year this provision might be of advantage to teachers for the very opposite reason.

A FINAL SUGGESTION

In conclusion the writer desires to offer as a suggestion the combination with the minimum salary law of the plan of establishing by central authority higher standards of qualifications in licensing teachers. It will be recalled that the latter under certain conditions was judged superior to the former in raising the standard of education on the teaching side. Hence it is taken, thus conditioned, as the primary factor in the combination. Such a form of the plan is contemplated as will substantially and best improve the standard of teaching thruout the school system. This requires that the teachers occupying the different grades or kinds of position, such as kindergarten, rural, high school, and principal, be required by central authority to hold corresponding grades or kinds of certificates. It must not be possible, as is the case in certain states at the present time, for a teacher holding the lowest grade of license to occupy any position whatever in the public schools subject only to the consent of local authorities. As promotive of highest efficiency in teaching certificates are contemplated which are more or less special. There might be few or several different forms of license, as desired. As the secondary factor a minimum salary law is designed to supplement the primary factor in such a way that for each grade of certificate a minimum salary is established which closely corresponds to the current relation between demand and supply with respect to the

minimum qualifications for the certificate. If desired properly graded minimums could be established for different positions covered by the same certificate. It will be noticed that under this arrangement the series of minimum salaries is also based upon grades of position. This arrangement would secure the coöperation of the two most potent means of establishing abiding improvements in education on the teaching side; for where one might fail, the other would avail. A more efficient plan theoretically can not be conceived. And furthermore it would provide adequate and just salaries for all teachers from the first, providing against the effects of imperfect competition as effectively as it is possible to do so. As indicated above this plan is offered as a suggestion. It is not a finished product for immediate practical use. School systems are not wanting in the world at the present time which are organized in similar or other respects with equal or greater definiteness and detail than are involved in this suggestion.

RAYMOND W. SIES

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VIII

DISCUSSION

THE ESTHETIC VALUE OF THE CLASSICS

The relative educational value of scientific and classical studies is a theme of unremitting interest. The place of each in high school and college curriculum is pleaded and denied in turn, according as the classicist or the scientist has the floor. If the inimical relations of science and the classics be recognized as but another aspect of the hostility between art and those pursuits which have a direct bearing upon the welfare and preservation of mankind, then Kipling's *Story of Ung* may be considered a fair portrayal of the situation. The tribe might indeed be wroth at Ung, the prehistoric artist whose engravings of the mammoth were so deathless that they have lasted even to our own time. Nevertheless the artist was a necessity to the prehistoric man.

It may be of interest to consider side by side some expressions of the two points of view, giving both the classicist's and the scientist's argument. Two addresses given within a month of each other furnish ample material for such quotation, namely, "The acquisition of language," by Dr. Alexander Hill,¹ and "Our problem and a platform," by Professor Thomas D. Goodell, of Yale University.² Professor Goodell states at the outset that he is not discussing classics versus science, but since he assumes that "The study of Latin is good for the great majority of boys and girls who take a high school course or its equivalent, and that the study of Greek would be good for many who do not take it," and brings arguments to

¹ Presidential address to the Teachers' Guild of Great Britain and Ireland, delivered at University College, London, May 22, 1906, and published in the *Popular science monthly* for June, 1907.

² Read before the New England Classical Association, Springfield, Mass., and published in the *Classical journal* for November, 1906.

support this assumption, his address furnishes legitimate material for comparison with that of Dr. Hill.

Dr. Hill says, "The scholars of the Renaissance studied Latin and Greek for the sake of getting at the writer's thought. . . . By the beginning of the eighteenth century the wisdom of Plato and Aristotle had been absorbed into modern thought. The reason for studying Latin and Greek had gone. Yet the languages had a firmer hold upon the schools and universities than they ever had before." Later, in commenting upon the use of Latin as a common language in the Middle Ages, he says, "It became traditional that a Scholar (spelled with a capital S) was a man able to write Ciceronian Latin without the aid of dictionary or books of accidence, and this medieval tradition still holds in our public schools." We find almost the same arguments put forth over a century ago by a well-known writer of our own country: "Almost all the scientific learning that now exists comes to us from the Greeks or the people who spoke the Greek language. It therefore became necessary for the people of other nations who spoke a different language that some among them should learn the Greek language in order that the learning the Greeks had might be made known in these nations, by translating the Greek books of science and philosophy into the mother-tongue of each nation. . . . As there is now nothing new to be learned from the dead languages, all the useful books being already translated, the dead languages are become useless, and the time expended in learning them is wasted."

Why, then, do we continue to study and teach the classics, if there is no new learning to be obtained from them? For we are not now considering the investigator of professorial rank, or even the graduate student, to whom the classics undoubtedly do offer new learning, even tho it may be but the tailings from the golden seam discovered by the Renaissance. The investigator's place remains unassailable, as long as the world believes that it is good to have the sum of human knowledge increased. We do live for the present and future, but in order to do so wisely we must learn all that the past can teach us. It is necessary that a certain small proportion of mankind turn their faces

towards the past and become its interpreters, and it is a matter of world-economy as well as a cause for satisfaction that those who take up this task of interpretation be of the finest possible mental caliber. But it is in relation to the undergraduate and even to the high school pupil that we are considering the question of the study of the classics. The undergraduate represents the intellectual middle class of America. Realizing this, we must deny, tho ever so unwillingly, the point made by Professor Goodell, that the study of Greek "will continue to attract the strongest and most aspiring minds, the intellectual leaders of their generation." The intellectual leaders of America seldom come from those who thirst for Greek.

Dr. Hill says, "A boy does not learn Latin or Greek roots because they will help him to understand his own language. He does not acquire these languages in order that he may absorb the science and thought of the ancients direct from the original text. . . . For schoolboys Greek and Latin are exercises in grammatical expression and nothing more." Professor Goodell, on the other hand, says, "The purpose of studying Greek is to gain a firsthand acquaintance with a great force in civilization. . . . A fair degree of firsthand knowledge of Hellenism enlarges greatly one's intellectual comprehension of the past, enables one to see many present problems in juster perspective, and has extraordinary power to mold and refine the taste." But in claiming these advantages for those who have gained "a fair degree" of firsthand knowledge Professor Goodell does not answer the question for the student whom he professes to be considering, namely, the one who advances no farther than the *Anabasis* and Homer. Even granting that our undergraduate goes further than these two years of reading, we may yet need to yield the truth of Dr. Hill's affirmation that "We can attain all that the Renaissance sought for and an infinity beside, without knowledge of either Greek or Latin." It is indeed true that the average person gains a better acquaintance with Hellenism from English treatises and translations than from his firsthand knowledge of the literature.

Since we admit that it is not really the content of the classics for which we study them, the next step is to hearken to the old

cry of "mental discipline." But this is so effectually disposed of by Professor Goodell that it seems idle to consider it further. Another suggestion, which also represents the attitude taken by Dr. Hill, is that the real benefit of classical education consists in training in expression. Such training comes from translation, and is of value because it gives the power of precision of thought. From constant study of the dictionary new words are learned, synonyms are discriminated, and the flexibility of English in contrast to the classical languages is appreciated. For if "gender, number, case, hamper language, restrict its flexibility, impede thought," then truly was Cæsar to be pitied "in that his thoughts when they went abroad must walk in irons." But if the classics are studied with such a purpose it seems to Dr. Hill a roundabout way of reaching the goal. "The drilling of boys in languages of lower type than their own must have some strange mysterious sanction to justify its use." His conclusion is that any foreign language would serve as well, and that perhaps English itself might be still better. And the argument does seem rather convincing.

But a reason for the study of Greek and Latin that is not adduced in either of these articles is indirectly alluded to by Professor Goodell when he says "It is not learning new sets of vocables, inflections, grammatical rules, alphabets, or ideographs, that yields culture." It is in following up this suggestion that we may find a solution. It is because of their esthetic value that the classics can and should hold their own. They should not be considered in opposition to science or to the undeniably useful modern languages any more than should the study of English or of music be placed in opposition to that of science. It is for the beauty of form that we study Homer and Virgil. We care nothing for the content. It is unutterably wearisome if read in literal prose translation. But the form in which these tales are told is deathless. So it is with all the poets, and so it is also with prose, or all save the specialist would read Plato thru Jowett. It is only by admitting that we study and teach Greek and Latin chiefly as a means to esthetic development that we achieve for them their rightful place. Every human being has a right to material welfare, to intellec-

tual growth, and to esthetic development. One of the means towards this last aim is, becoming acquainted with the artistic achievements of the past. Among the greatest of these artistic achievements is the literature of the Greeks, and also that of the Romans; and its artistic qualities can not be appreciated except thru a firsthand acquaintance.

Granting that our point is made, we may need to face the question whether this esthetic pleasure is attainable by students whose familiarity with Greek goes no further than a year of Xenophon and a year of Homer, and whose knowledge of Latin is of a similar development. And if it is not, should we compel, or even urge, the undergraduate and the high school pupil to stick to the classics?

IVY KELLERMAN

TOLEDO, OHIO

IX

REVIEWS

The writing of English—By P. J. HARTOG, Academic Registrar of the University of London, sometime Bishop Berkeley Fellow of the Owens College, and Lecturer in the Victoria University, Manchester—with the assistance of Mrs. Amy H. Langdon. Oxford: Clarendon Press. 1907. p. 164+xi. 2s. 6d.

In something less than one hundred and seventy-five pages, Mr. Hartog has set forth his theory of teaching mother-tongue, in a very clear and convincing manner. The plan of the book may be briefly outlined as follows:

- (1) The English boy can not write English.
- (2) The English boy is not taught to write English.
- (3) The French boy can write French.
- (4) The French boy can write French because he is taught how to write.
- (5) Historical reasons for the foregoing facts.
- (6) How the French boy is taught to write.
- (7) How the English boy may be taught to write.

It is the practical aspect of this whole question which appeals to the author most strongly. "The scandalous incapacity of the English boy to write clear English," and the methods of changing this weakness into strength, are held to be of national importance. Mother-tongue training in England, France, the United States, and Germany is carefully analyzed and illustrated: preference being given, on the whole, to the system obtaining in France. But "the great and worthy tradition of teaching English to English people, must be founded, ultimately, upon English experience."

American teachers of English, in either colleges or secondary schools, will find this little volume unusually suggestive, stimulating, and helpful.

J. H. C.

The psychology of religious belief—By JAMES BISSETT PRATT, Assistant Professor of Philosophy in Williams College. New York: The Macmillan Company, 1907. xii+327 p. \$1.50 net.

Weighed in the large scales that an ambitious title challenges, Professor Pratt's contribution must be called slight. In the psychology of religious belief his volume does not measurably advance us beyond previous work. It supplies no psychological explanations, no penetrating analyses. Nevertheless, it performs a service. If a trifle thin, it is unimpeachably sound. Its service is largely negative, but real: namely, (1) to discredit certain ingenious and violent theories of recent date such as would reduce mysticism to a sexual phenomenon; (2) to recall attention from the violences and paroxysms of religious experience in general (instructive as those are) to the normal and calmer phase natural to the species; (3) to show that this phase, tho often calm, is not dependent on the intellect, but belongs to the background of vital and organic feeling, and must survive there, forever expressing itself in new concepts, forms, and symbols. In consistency with this account, mysticism (which has fared ill of late at the hands of certain American metaphysicians and humanists) justly appears as simply religion itself in its culmination or complete development.

The author distinguishes three stages: the religion of primitive credulity, that of thought, and that of feeling. The central portion of his book traces these amongst primitive peoples, in India, in Israel, and in Christendom. Coming to the study of belief as it is seen about us, he shows us, with the aid of a circular of inquiry that he has himself drawn up, the presence of these phases in childhood, youth, and mature life.

Thru the whole book, as in most psychology of the higher functions at the present time, the footprints of Professor William James are visible. To this the author abundantly testifies. In the emphasis on the dark side of consciousness, in the analysis of belief as containing an element of will, in the excellent practise of quoting from spiritual autobiography, in the reliance on experience and practical results as the sole and sufficient test, this potent influence is seen. On the other hand, one could wish that the author had made more use

of what is the most important modern source of insight into the phenomenon of religion, German theology. As it is, tho his results are not analyzed and interpreted with this aid, it is a striking fact that they furnish one more confirmation of the view in which practical Christianity, modern theology, and the psychology of religion are substantially at one: namely, that it is to religious experience that we must look for the evidences of religion.

DICKINSON S. MILLER

COLUMBIA UNIVERSITY

Brain and personality—By W. HANNA THOMPSON, M.D., LL.D. New York : Dodd, Mead & Co., 1906. v+320 p. \$1.20 net.

Dr. Thompson defends the thesis that purposive thought and action are not produced or paralleled by the activities of the central nervous system but are due to the direct creation by "personality" of changes in the nervous system. His defense consists in evidence (1) that the associative activities outweigh the afferent in importance, (2) that the former are acquired during life, and (3) that our praise or blame, and rewards or punishments would not be just if a mechanical or parallelistic account were true.

In the course of this general argument he gives a popular description of the historical development of knowledge of brain structure and function, of the relation of brain weight to intellectual achievement, of the prepotence of one hemisphere in mental life, of inhibition, habit and sleep. He also adds certain exhortations to self-control and the wise regimen of intellect and character.

It is to be feared that the general reader will be misled by the book. For instance, having read, "Now with the partial exception of the hands and feet, the salient fact about other pair organs in the body is this: That either one of the pair can do the whole business of both if necessary," he will be in a poor position to appreciate the facts of binocular vision. To take another instance, the suggestion that a human personality could very likely get on much as now if it had only a chimpanzee's brain to work with is a case of precisely the wild

neglect of fact which debauches popular thinking. Again, the neglect of modern studies of the finer anatomy of the central nervous system denies the reader not only adequacy but also ease in the understanding of the relation of brain events to mental facts. Finally, to encourage the common but naïve assumption that we punish murderers primarily because they have misused their free will can hardly help to clarify popular thought—still less will the argument, that what most people believe must be true. The earth was no less round when people all thought it flat; the plague was no less caused by rats when people thought it due to magic!

EDWARD L. THORNDIKE

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Nature and health—By EDWARD CURTIS. New York. Henry Holt & Co., 1906. 307 p. \$1.25.

This very unusual treatise on hygiene is written by a man rich in years and experience who has evidently a very genuine feeling for the simple, rational life. He is, we may well believe, devoted in practise to the healthful habits of living which he advocates with a poetic enthusiasm. The spirit and atmosphere of the book bear out the statement in the preface that it "has been written in great part out-of-doors. Thought out under the open sky, it has been committed to paper by the wayside, on knee or on the flat tops of fences."

The book deals with various phases of personal hygiene and sanitation, taking up under the latter heading those topics of special concern to the individual and the home. The later chapters, particularly those on "exercising the mind; sleeping and waking; working and playing," are full of pithy observations and helpful suggestions concerning topics which often receive meager attention in books on health and hygiene.

Certain common and serious errors in living, whose direful effects lack emphasis in ordinary exposition thru commonplace and familiar presentation, gain here new force in striking alliteration and metaphor, as the following extracts illustrate: "Fine fare leads to feasting, feasting to fat, fat to degenera-

tion, and degeneration to death"; and again further on: "Whoso plays with fire-water, let him beware the swoop of the vulture cirrhosis, that relaxes not his grip by night or day when once the cruel claws are fixed."

Learned in scientific and classic lore, the author has prepared a book, however, for a rather limited class of readers. The work abounds in foreign phrases; references to mythology; scientific terms, and allusions not sufficiently explained; involved statements and complex figures of speech. There is much of circumlocution and "fine writing." There are language pictures in which the word-coloring impresses more than the facts and their relations. The humor is often too subtle and the statements too much veiled even for the average intelligent seeker after health.

To thoroly understand and appreciate this book, one should have had training in language and literature, classic and modern; preparation in pure and applied science; and previous instruction in medicine and hygiene are necessary to complete understanding of some more technical phases. The book is adapted to adults rather than to children and to the special rather than the general reader. It is entirely lacking in cuts and illustrations which are important for the elucidation of the scientific problems of hygiene.

The author draws from a wide range of technical knowledge of his subject, but fails in the first chapter—on breathing—to present the latest conclusions respecting the physiology of respiration. Of expired air he says: "It is the organic product of exhalation that is the offensive element. This product is not at all a gas, but a cloud of fine particulate entities. The particles do not obey the law of gases, but the law of soot." The above sounds extraordinary in view of the latest opinions of the scientists. Recent investigations of expired air, such as those conducted under the directions of Billings and Mitchell, strengthen the belief that there is no intrinsic organic excretion in expired air, but that the unwholesomeness of crowded, badly ventilated rooms is due to increased humidity and temperature, and to the bacteria and

exhalations from unclean clothing and skins, and unhealthy bodies. It is essential that emphasis should be correctly placed in discussion of this important problem.

The author states in the preface that the book is "offered as a lure for wise living." To serve as a genuine lure the work on hygiene should present the different phases of the subject not as detached topics but always in their relation to each other and to the general problem of healthful and economic living. Further, not only must scientific truth be clearly expounded, but the responsibility for health should be so convincingly stated and the motives for sound living so persuasively set forth that the reader will be impelled to apply in conduct what he knows to be rational. Wisdom consists here as elsewhere in doing what reason dictates.

THOMAS D. WOOD

COLUMBIA UNIVERSITY

Memories of a great schoolmaster—By JAMES P. CONOVER. Boston: Houghton, Mifflin & Co., 1906. xxv+270 p. \$1.50 net.

Memories of a great schoolmaster has been written by Dr. Coit's son-in-law. Mr. Conover is peculiarly fitted to write such a sketch, as he began by knowing Dr. Coit as a schoolboy at St. Paul's, later as a master at school, and finally as a member of Dr. Coit's family. One thus gets the point of view of an "Old Boy" who has had time and opportunity to know intimately the subject about which he writes. The book has been compiled with deep affection and glows with enthusiasm. The author is frankly depicting one who was in many ways his own ideal. The account is thus extremely personal, full of suggestion and reminder to one who had known the "Rector." But it takes a little too much for granted in the mind of the casual or indifferent reader. One is introduced to the life of a great family, as told by one of its enthusiastic sons—the schoolroom, the classroom, and the chapel, and above all the old "Rector" himself, dominant in every situation, are brought back with a surprising vividness to every St. Paul boy of that period. For the school was in every way

the exponent of the strong peculiar nature of its great headmaster. Its buildings and atmosphere, its ordered tasks and its tone, were but parts of the frame into which fitted the omniscient and omnipresent face of the "Rector." He stood as the prototype of all that was admirable, the measure of excellence, the last word on life to a St. Paul's boy, and to maintain this standard he used his own methods and his often mysterious ways.

Mr. Conover's book has been a revelation to many of us "Old Boys"; of many things which to this day we have never fully understood, for the absolute rule of the "Rector" lived in the realm of perpetual reserve, a lofty remoteness from the ideas and the practises of the everyday. I do not say that the school could mean today what it did then; but I do believe that Dr. Coit's plan was altogether admirable and necessary, in order that we might arrive at our present ideas on masters and boys. Moreover, only a personality like his could, with such a high-minded policy, achieve such results; and he realized to the full, himself, the great value of his presence. He never wasted his prestige, he never descended from his pedestal, he never was found off his guard. He was what he appeared to be, and however you might disagree with him as to details, you had the profoundest respect for the genuineness of his convictions and the absolute consistency of his life. More feared than loved; more admired than known, he towered as the bulwark of what ought to be amid the wreck of many boy worlds. Holding up a standard far higher than any of us have ever attained; but by so doing, leading us on to heights of endeavor, which we otherwise would never have known. Perhaps today we lay the emphasis in education too strongly on method and equipment, and have forgotten that God's great medium to man of beauty, of truth, and of right is human personality.

The value of St. Paul's School as an institution of the young in certain branches of learning, may be definitely gaged, but the value of the influence of one great soul upon thousands of boys, who have looked into his life and let his words sink

into their minds, will never be fully known, even by the boys themselves. As I look over the pages of Mr. Conover's book, I am again and again confronted by certain thoughts and opinions that I had supposed were all my own; but I can see now how they were gradually borne in upon a young and receptive mind, by the tone and the face, and above all the presence of one great man, whom I admired and loved. Dr. Coit is alive today, and a real force in American life, speaking thru thousands of voices, willing thru thousands of minds, holding up a high standard, thru the lives of many manly men, all of whom got their first vision of things from their great "School master" in the New Hampshire hills. Surely as we read this short vivid sketch something of the divine task of the teacher is borne in upon us, of whom it may be said: "In thy light shall they see light." Every St. Paul's boy who knew the "Rector" must be deeply grateful for such a reminder of his better self and perhaps the greatest influence of his own boyhood; and for those less fortunate who never knew what it was to be one of Dr. Coit's pupils, this story of a teacher helps to make plain the fact that the greatest gift that has been given us is our personality, whoever we may be, and that thru it men may learn the meaning of the presence of God.

HUGH BIRCKHEAD

NEW YORK, N. Y.

Greece and the Aegean Islands—By PHILIP SANFORD MARDEN. Boston. Houghton, Mifflin & Co., 1907. 386 p. \$3.00.

Whether for the general reader or for the traveler, this is an altogether delightful book. Its geographic and artistic descriptions are written with rare good judgment and skill, and the photographic illustrations are excellently chosen and made. The tone and spirit of the book are those of a genuine lover of Greece and of Greek achievement. We sincerely wish that it might be generally read to or by secondary schools and college classes in Greek or in ancient history.

Particular attention ought to be called to the practical value of the *Teachers College record*, the separate bi-monthly issues of which are extremely valuable contributions to particular phases of educational inquiry. The latest issue is *A bibliography of children's reading*, edited by Professor Franklin T. Baker. It will be found of great value as a book of reference for the elementary and secondary school teacher of English. (New York: Columbia University Press, 1907. 74 p. 30 cents.)

To accompany Professor Robinson's well known *Introduction to the history of western Europe*, a careful syllabus in two parts has been prepared by Professor Trenholme of the University of Missouri. (Boston: Ginn & Company, 1907. 80, 94 p. 45 cents each.)

Practical physics is the title of a laboratory manual for use in colleges and technical schools. It is prepared by Professors Franklin, Crawford, and Macnutt. We can not particularly commend the book as a textbook whether regard be had to the order of topics or to the treatment of material. (New York: Macmillan Company, 1908. 174, 160 p. \$1.25 each part.)

The increasing number of books dealing with elementary Spanish is a welcome sign of the growth of that subject in educational importance in this country. An excellent collection of *Legends, tales, and short poems* by Gustavo A. Becquer has just reached our table. It is edited by Dr. Olmsted of Cornell University. (Boston: Ginn & Company, 1907. 288 p. \$1.00.)

Two capital elementary reading books for beginners in French are Lazare's *Les plus jolis Contes de Fées*, and Maistre's *Les prisonniers du Caucase*. (Boston: Ginn & Company, 1907. 130 p.; 40 cents. 72 p.; 30 cents.)

A curious book of an amusing type is entitled *Ifs of history* by Joseph E. Chamberlain, the literary editor of the New York

Evening mail. Mr. Chamberlain writes agreeably and suggestively on twenty-two different *Ifs*, including for example, *If Charles II. had accepted the kingship of Virginia*, and *If the Confederates had marched on Washington after Bull Run*. (Philadelphia: Henry Altemus Company, 1908. 203 p. \$1.00.)

One looks askance at an American textbook on physiology because of the preposterous legislation in almost every American state which strives to make its instruction reformatory rather than scientific. Mr. Walter H. Eddy, teacher of biology in the New York High School of Commerce, has made a book, (*Textbook in general physiology and anatomy*), however, which is as far from the limitations which this required treatment prescribes as any that has come to our notice. The illustrations are particularly clear and well made. (New York: The American Book Company, 1907. 521 p. \$1.20.)

We welcome every evidence of the increasing study of Spanish in American schools and colleges. The last textbook to come to us is *Spanish prose composition* by Professor Umphrey of the University of Cincinnati. (New York: American Book Company, 1907. 174 p. 75 cents.)

A companion volume dealing specifically with correspondence is *Spanish correspondence* by E. S. Harrison of the Brooklyn High School of Commerce. (New York: Henry Holt & Co., 1907. viii + 157 p. \$1.00.)

Still another introductory book for the beginner of Latin. It is called *Introductory Latin*, by Frank P. Moulton. (Boston: D. C. Heath & Co., 1907. 268 p. \$1.00.)

A rather formal and stiff textbook is Edwin C. Woolley's *Handbook of composition*. (Boston: D. C. Heath & Co., 1907. 239 p. 80 cents.)

The distinguished Sub-Director of the Pasteur Institute, Professor Metchnikoff, has long since won the right to a re-

spectful hearing. His studies in the nature of man and the prolongation of life are of far more than ordinary interest and importance. In his new *Prolongation of life*, he discusses the various theories of longevity and develops his well-known notion of the value of lactic acid for the inhibition of intestinal putrefaction. The closing essays in the book are literary studies in various aspects of old age. The book will doubtless have, as it deserves, a wide and careful study. (New York: G. P. Putnam's Sons, 1908. 343 p. \$2.50 net.)

A book of an excellent type, and itself very well done, is *Great myths and their art* by Superintendent Mann of Batavia, Ill. The author connects representative Greek myths with their representation in the plastic arts and shows clearly by example some of the most interesting relations between literature and the other fine arts. The photographic illustrations of the volume are capital. (Boston: Prang Educational Company, 1908. 155 p. 60 cents.)

The boy geologist is an entertaining reading book for young people which conveys a good deal of interesting scientific information in an attractive form. The author is Dr. E. J. Houston of the Central High School of Philadelphia. (Philadelphia: Henry Altemus Company, 1908. 320 p. \$1.00.)

It would appear better to postpone until a man's death an authoritative and complete account of his life and undertakings. Mr. Francis A. Jones, however, has not waited for Mr. Edison's death to bring together in a volume an account of Edison's extraordinary career. (New York: T. Y. Crowell & Co., 1908. 370 p. \$2.00.)

X

NOTES AND NEWS

The Association of American Universities

The Association of American Universities, which held its ninth annual Conference with the University of Michigan, at Ann Arbor, on the ninth and tenth of January, in the adoption at its opening session of the report of a special committee on the aim and scope of the Association, appointed at the Harvard Conference of last year, set up a milestone on the highway not only of its own history, but of the history of education of the country. In the matter of the aim of the Association, considered with reference to the possible extension beyond the limits of the graduate school of the range of topics properly to be considered as belonging within its provenience, the action of the 1902 Conference to include within the scope of the discussions of the Association "all those questions and problems which arise in organizing really advanced instruction in the various departments of university life," was reaffirmed and embodied in the present report.

The second question, with regard to the scope of the Association and the possible enlargement of its membership, was considered at length and resulted in an important declaration of principles, involving in the end the first definition of an American university that has been made by the universities themselves, and incidentally opening the door to three of the great State Universities, the University of Illinois, the University of Minnesota, and the University of Missouri, which were unanimously elected to membership in the Association.

The opinion has been held by various members of the Association, and at the last Conference it was freely expressed, that the Association had to a great degree fulfilled the purpose originally conceived in its formation, and that it was not only

desirable but necessary, in the interest of the Association and of the cause of education, to extend the membership beyond its present limits. The problem, accordingly, that was presented and has been solved by the present action was the determination of the conditions of eligibility that should hereafter be applied to the admission of new members; of establishing, in other words, a standard of value, and of defining what in the opinion of the fifteen members comprising the Association should be a university in fact in the American system of education. Hitherto, the Association has made the existence of a strong graduate department the sole condition of membership. At the present time, however, it is wisely recognized that if a standardization of American universities is to be attempted, the conditions of admission to professional courses should also be taken into consideration, since the best universities will undoubtedly in the future rest their professional courses on a basis of college work. It was determined to adopt as a second criterion for membership, in the words of the report itself, the requirement of one or more years of college work as a prerequisite for admission to professional courses, the combination being so arranged that no professional degree shall be given until the satisfactory completion of at least five years of study. Fearful, however, that a strict enforcement of both requirements might work substantial hardship at the present time, as a final formulation it was decided that it is not too much to demand at the outset as a condition for membership that in the universities which have professional schools and a graduate department the latter shall be creditable and that the total of the work prescribed for professional degrees in at least one professional school shall be not less than five years. The report concludes this phase of the matter as follows:

“Your Committee are of the opinion that American universities can not be justly standardized with reference to graduate departments alone; the requirement of a general or liberal education as a prerequisite to professional study, along with an extension of the period of study for professional students, being in the estimation of the Committee an important consideration.

They are of the opinion that American universities should be standardized with reference to these *two* criteria."

The report furthermore expresses the opinion that it is the duty of the Association to admit American universities to membership so soon as they shall satisfy these conditions.

In the adoption of this standard of legitimation, it is plain that the Association both justifies its own existence as "The Association of American Universities" and relieves itself of every vestige of the onus of the characterization that has been applied to it in the past of an "educational trust" created for its own aggrandizement. Membership in its body becomes henceforth a matter of vested right and not of conceded privilege, willingly or unwillingly bestowed by the ins on the outs. Henceforth, it is the matter of each institution of learning in the country to qualify or not as its circumstances may dictate or its desires may lead it in the pursuit of its own particular plan of development. By this action, furthermore, the question frequently propounded: What is an American University? has been answered by a large number of the representative universities themselves. It is quite likely that the right of a self-constituted body to set up a standard will be questioned by some, but the logic of the whole situation remains with the Association, in the light of its history and the reality of the standard applied in the present instance, and there is no serious doubt as to the acceptance of its action at home, and its recognition abroad by those institutions which have already united with it in a reciprocity of educational opportunity. Quite as important, too, as this phase of the matter, is the action with regard to the professional schools in its whole present and future bearing, since it definitely commits the Association to the combined course, and by prolonging the period of study and extending its scope formally raises the standard of professional studies in the United States.

The Association referred to the same special Committee, continued for this purpose, with the President of the Carnegie Foundation as an additional member, a further recommendation embodied in its report that a list be made of the colleges whose degrees it regards as of equal value with the college de-

grees conferred by the universities embraced in its membership. Such a process carried out for the colleges will standardize from the point of view of the Association the colleges of the country, a condition positively incumbent upon the Association under its present action to admit those institutions only to membership which base their professional work upon college work.

The second session of the Conference was devoted to a consideration of the conditions of the higher education in the Latin-American countries. The possibilities of intellectual cooperation between the United States and Latin-America were discussed in a paper presented by Professor Rowe, of the University of Pennsylvania, and the recommendation of the Executive Committee was adopted, inviting the various members of the Association to name delegates to the Pan-American Congress to be held in Santiago, Chili, in December, 1908. Resolutions were also adopted looking to the establishment of closer relations between the universities and investigators of the whole American continent; to examine into the conditions under which students from Latin-America may advantageously be admitted to the universities of the United States; and recommending the establishment of a system of university scholarships for Latin-American students in American universities.

At subsequent sessions papers were presented by Professor Vaughan, of the University of Michigan, on the part of the undergraduate college in preparation for professional education; and on the selection of the subject, the preparation, the acceptance, and the publication of the doctor's dissertation by Professors Small and Salisbury, of the University of Chicago. The thesis of Dr. Vaughan's paper was, in particular, the necessity of providing for pre-medical instruction in the undergraduate courses of the college. The conclusions arrived at were that: (1) Medical education in this country has reached a stage when it must demand of its matriculates a good sound training in physics, chemistry, and biology. (2) The extent of instruction in these branches demanded is beyond that given in even the best of our secondary schools, and it must be obtained in our universities or schools of technology. The in-

struction should be largely in the laboratory, and as a minimum, each of the three sciences should require one-half the student's time for one semester, and more than this should be given if the student has had no proper training in the elements of these branches in the secondary school. (3) Knowledge of these subjects is essential to the satisfactory study of medicine, and no substitutes for them can be accepted. (4) The best medical schools can not accept for matriculation the bachelor's degree even from our best universities without going back of the degree and ascertaining how thoroly the student has been grounded in these sciences.

It was further affirmed that a reading knowledge of French and German is absolutely necessary to the satisfactory study of modern medicine. The paper concluded with the statement that it is the purpose of the medical educators of the country to require at least two years in the college in physics, chemistry, biology, and the modern languages for admission to the medical school, and the support of the members of the Association was asked in "this movement for the betterment of the profession."

The paper on the doctor's dissertation considered in detail conditions at hand at the present time in American universities in this requirement for the Ph.D. degree. Complete statistics were given as to the evolution of the dissertation from the standpoint of instructor and student and of its subsequent disposition; of the number of doctor's degrees awarded, and of the number of dissertations published. A recommendation was strongly urged that the requirement of a reading knowledge of French and German, as a qualification to be insisted upon in advance of the candidate for the degree, should be made by all members of the Association, but three of which enforce it at the present time. The position was taken that all dissertations should be printed. All but two of the institutions in the Association supposedly print all dissertations, but few of these, for a variety of reasons, show complete lists. The general conditions of the award of the Ph.D. degree were found, as has repeatedly been affirmed to be the case, remarkably homogeneous and as a whole satisfactory, altho in detail there is still need of concurrent action in important points.

The Ann Arbor Conference, in which all but one of the fifteen universities of its membership participated, was one of the most thoroly alive of recent meetings, as it was in its positive results one of the most important. If in its earlier years, its influence has appeared to be on the surface at times more ideal than real, it has none the less steadily brought the institutions which are its members, and which fairly represent the ultimate conditions of the educational system of the country, more and more closely together in precept and practise, until now it has been able in an important direction to define a national standard, which, however it may be approved or disapproved by non-members of the Association, will not fail in the end to be generally recognized as valid. There is still abundant room in the whole educational system for the future activity of the Association. The proposed standardization of the colleges is quite as important in its bearing as the action taken in the case of the universities and should speedily follow as a link in a logical chain that is still unwelded.

The Association elected as its President for the ensuing year the University of Michigan, with Leland Stanford as Vice-President. Harvard was made Secretary for the regular period of five years, and Cornell and Columbia were appointed additional members of the Executive Committee. It was decided to hold the next annual Conference at Cornell University, at a date to be subsequently determined.

A Tempest in a Teapot

The fact that Boston, despite all the changes that the last few years have witnessed in the world, is still "a state of mind," is again demonstrated by the almost hysterical discussion which has been going on there for some time past relative to the transfer of a teacher from one high school to another. In most places such a transfer would be viewed as part of the ordinary routine of official administration. It would not be looked upon necessarily as being an act of discipline or a punishment of any kind. If the superintendent of schools were a competent man, as is the case in Boston, such a transfer would be regarded simply as a new disposition of the forces at his disposal. It would in no

wise be held to reflect upon the competence or effectiveness of the person transferred.

In Boston, however, the pupils and graduates of one of the high schools in question, and their quite too high-strung parents, have been carrying on an elaborate and determined warfare against the school board and the superintendent of schools about a transfer which both the school board and superintendent unite in saying was a desirable one, was not an act of discipline or punishment, but was made in the interests of the schools alone and without any personal feeling.

At this distance from the scene of battle, we might be permitted to express surprize at the amount of consideration the case has received in the public press. We have no possible doubt that the superintendent and school board acted in a manner which their judgment told them was best for the schools and for the teacher transferred. It would be difficult to understand the amount of heat which has been brought into the discussion did not experience prove that no questions, not even those of religion, can excite so much high feeling and animosity as ordinary matters of educational policy and routine.

To the Editor of the EDUCATIONAL REVIEW :

**Universities and
Newspapers**

As a matter of more than local interest, may I ask what explanation is to be offered of the attitude taken by the press toward the great Universities of the United States and their activities?

This attitude is almost universally one of neglect, of misrepresentation, and not infrequently of contempt. In any other country the universities are esteemed as the most precious of the nation's treasures. In this country, despite their extraordinary history and public services, the newspaper press treats them with disdain.

My attention has been attracted to this subject for some years past, but of late I have been led to remark in particular the discreditable attitude toward Chicago and Columbia Universities taken by the newspaper press of Chicago and New York. Important events in their work which are of large significance and much public interest are either not noticed at all,

or are misrepresented, and flaring publicity is given to any casual student freakishness or outbreak of boyish fun.

In the editorial columns of the *Independent*, a journal ordinarily edited with care, I read in the issue of January 30, 1908, the following extraordinary statements made apropos of an incident in student life, of no importance, which was greatly magnified by the sensational press, even after responsibility for it had been disavowed by the undergraduate paper itself:

"But the attitude of the Columbia students is quite comprehensible. It is the natural result of their environment and training. They are accustomed to see women shoved off into an annex across the street and deprived of a large part of the freedom and advantages they enjoy. They are aware of the prevalence of the opinion among the faculty that to admit women to their classes would lower the standard of scholarship. They know that women are by a law of the university excluded from entering the newest and finest building on the campus, Hamilton Hall. Women may enter it on their knees for the purpose of cleaning off the filth left by masculine habits; they may come for office consultations or as assistants and stenographers to write the letters of the professors and take down their ideas for future books, but they are not allowed to express in these sacred precincts any ideas of their own. It is inevitable that young men seeing women employed only in a servile or subordinate capacity should come to regard them as only fit to wait on men, and should be shocked at the idea of meeting them as equals, as comrades and as competitors."

By adding the results of precise inquiry to information which I already possess in regard to the policies of Columbia University, I discovered that each statement made in the extract quoted was a falsehood. Each statement is a falsehood in the guise of truth, so subtle that it appears to indicate malice.

Now, Mr. Editor, this question arises: What possible motive can there be for the malicious misrepresentation of the policies of a great university? In the case which I am citing it happens to be Columbia which is attacked; tomorrow it may be Harvard, or Yale, or Princeton, or still more likely, Chicago.

What is the explanation of what I can only regard as an extraordinarily discreditable phenomenon in our American life ?

J. J. L.

[The phenomenon to which our correspondent calls attention, and which is a matter of constant discussion among university officers, is apparently due to some cause which, as Lord Dundreary would remark, is "one of those things that no fellow can find out."—EDITOR.]

One of the best known and most widely circulated weekly publications in the country recently printed the advertisement which follows :

BUSINESS OPPORTUNITIES.

COLLEGE FOR SALE.—Whole or half interest ; presidency included. Annual net income \$5,000.

Comment is hardly necessary.

An educational paper which deserves very wide reading appears in Putnam's *Monthly* for January last. The author is Mrs. George Haven Putnam and her subject is "A classical education." It would be worth while to have this paper discussed at school and college faculty meetings.

Dr. W. C. Bagley, teacher in the State Normal School in Oswego, New York, has been appointed Professor of Education in the University of Illinois. Dr. Bagley will begin his new work September 1, 1908.

EDUCATIONAL REVIEW

APRIL, 1908

I

THE SIMPLIFICATION OF LANGUAGE TEACHING

Last May, Professor Gonzales Lodge, in an address made to the Classical Association of the Middle States and Maryland, called attention to the reasons which practically limit the preparatory study of Latin to Cæsar, Cicero, and Vergil. Cæsar's *Commentaries*, he remarked, are written in language that is exceedingly concrete, while the vocabulary is comparatively limited. Cicero, while using a fuller vocabulary, differs mainly from Cæsar in the imaginative quality of his thought. Vergil's *Æneid* gives to the student a glimpse of the possibilities of the Latin language in pure poetry, in the figurative use of words, and in the actual coinage of new expressions.

Therefore, Professor Lodge held that the selection of these three authors for preparatory reading, while it is partly based upon tradition, does, nevertheless, involve a sound educational principle. The young student proceeds gradually from the limited and the concrete, by a gradual and natural transition, to fulness, variety, and a certain idealism. He is not obliged to make any violent shift from the language of one period to that of another. The three writers mentioned all belong to the Golden Age of Latin literature. Together they represent the completeness of Latinity at its very zenith.

From this point of view there can be no doubt that Professor Lodge is right. Taking these facts into consideration, it is unquestionably true that Cæsar, Cicero, and Vergil will continue to stand as the *trivium* of preparatory Latin. In another

way, however, it may be said that those who teach elementary Greek have an advantage so far as the content of the Greek reading is concerned. Xenophon's *Anabasis* is in itself far more interesting to any student than are Cæsar's *Commentaries*. The *Anabasis* is easier reading; the sentences are simpler; and the narrative is told with much more grace and spirit. It requires real inspiration on the part of the teacher to make Cæsar attractive to any student. The laboriously involved sentences in the indirect discourse are often very difficult. The *Commentaries* themselves were not written by Cæsar as literature, in the highest sense of that word, but rather, as M. Boutmy very cleverly says, as a "campaign document" and to serve a temporary purpose. In like manner, Homer appeals far more to the youthful student than Vergil ever can. There is something primitive in the *Iliad*, something free and splendid and stirring, which goes straight to the heart of a boy who is as yet too immature for the more subtle and artificial treatment that he finds in the *Æneid*.

But after all, while (as Professor Lodge himself admits) Nepos, for example, has advantages as against Cæsar, the general argument based upon a certain homogeneity in the three Latin authors mentioned, must prevail over other considerations; and so, Cæsar, and Cicero, and Vergil will no doubt continue to hold their place, substantially undisturbed.

And the strongest argument in their favor is that which is found in the analysis of their vocabulary. The force of this may be seen in the book which has lately been prepared by Professor Lodge for the use of teachers of Latin in the secondary schools.¹

In this convenient volume of 217 pages there are given, in alphabetical order, all the words that are contained in the first four books of Cæsar's *Bellum Gallicum*, in the six orations of Cicero which are usually read in schools, and in the first six books of the *Æneid*. The complete vocabulary is

¹ *The vocabulary of high school Latin*, by Gonzalez Lodge, Professor in Teachers College, Columbia University. Columbia University Contributions to Education. New York: Published by Teachers College. 1907. 217 p. \$1.50.

printed with such typographical distinctions as will show at a glance the words which are of most frequent occurrence in Cæsar (one thousand in all), the words which are most often or first found in Cicero (five hundred in all); and finally, those words (five hundred in all) which are essentially Vergilian. These words are briefly defined, and under each title there is a note or two as to the number of times which a given word occurs in the three authors, with here and there certain illustrative and necessary comment.

This book puts into the hands of secondary teachers a sure means for assuring consistency and effectiveness in the preparatory teaching of Latin. "They are," as Professor Lodge says in his preface, "the essential words of the Latin language, . . . and the student who has this vocabulary at his command will have the vocabulary of fully nine-tenths of all the ordinary Latin that he is likely to come into contact with." Hence, if during the first of the four years usually assigned to college preparation in Latin, the learner shall master five hundred words belonging to the necessary vocabulary of Cæsar, during the second year five hundred more, and, during the third and fourth years, the thousand that remain, divided equally, he will be qualified in this part of his subject to master with reasonable ease any passage of ordinary Latin that may be set him.

The tendency in all language-teaching, and especially in the teaching of the classics, is today in the direction of a scientific simplification. In the sphere of Latin syntax, this has been achieved in Professor Bennett's admirably condensed grammar which has now been tried and tested for thirteen years, and it is admirably exemplified in Professor Hale's recently published *First Latin book*,² which is based upon the usage of Cæsar only. Professor Hale's little volume is a model of educational good sense, and as its author says, "has been made in the classroom." We can not forbear quoting a bit from Professor Hale's interesting preface.

"Let us suppose that we could command the services of

² *A first Latin book*, by William Gardner Hale. Chicago and Boston: Atkinson, Mentzer & Grover, 1908.

some ancient Roman teacher. What would he, if a good and practical teacher, think of on his own account? A beginning with easy words, standing for familiar ideas, connected with home life. The opening sentences should be simple and interesting—about the dinner, good or bad, the servants, the boy and girl friends, and the like. A fruitful topic, next, would be the school, with its work and play. In time the sentences would group themselves into paragraphs and the paragraphs into stories. . . . setting the Roman before the student as a living being belonging to a living people. Then the story would become a 'serial' from lesson to lesson, still remaining natural and interesting, and thus easy to read and to remember."

Now that so much has been done to simplify the preliminary study of the Latin language and literature, the way is made plain for a still further unification and simplification in the work of the secondary schools. There is no longer any reason why the colleges and universities should not avail themselves of the existence of books like that of Professor Lodge on the one hand, and that of Professor Bennett on the other, in order to arrive at a uniform system of requirements for Latin entrance work. These requirements need not be absolutely identical in each college. Room is afforded for much flexibility, while still making it possible for any school to ignore the question whether this or that student is preparing for Harvard or Columbia, or Yale or Princeton, and to give them all precisely the same training; since a training can be obtained that will fit every boy and girl for the examinations at any of our leading universities. In other words, a very slight modification of the entrance requirements as stated in the different catalogs, would enable the schools to teach, not specific bits of Latin, nor, on the other hand, to flounder about aimlessly with a view to "sight translations"; but to do that which every school ought to do, and this is to teach Latin itself. All practical Latin teachers know that where the requirements involve certain definite parts of authors, seven-tenths of the students memorize these selections without really understanding them. Given a key-word, they can write out in examina-

tion almost any passage which has formed part of their reading; while in the presence of a bit of unfamiliar Latin, they are as helpless as a wounded bird in the presence of a snake. Hereafter, a judicious combination of required reading, to be studied very carefully for its syntax and its allusions, with exercises in sight reading taken from authors of the Golden Age, ought to give a sufficient discipline in forms, inflections, and in syntax, together with a freedom and sense of ease in non-required reading.

Therefore, in the future, the ideal college requirement in Latin would be based upon the mastery of the two thousand words contained in Professor Lodge's book as occurring five times or more in Caesar, supplemented by a reasonable amount of grammatical work, including prosody, composition, a careful study of some prescribed portion of Latin literature—not too long—and the translation of a passage of moderate difficulty to be rendered into English at sight. In this last test, the student should be furnished with the meaning of all words not included in the prescribed list of two thousand. The more one reflects upon this matter, the more deeply he will be convinced that it represents sound educational doctrine. That it will be extended to the Greek is a matter of certainty in view of action lately taken by the American Philological Association.

Teachers of the modern languages might very well consider whether the principle involved might not also be applied to the preparatory teaching of French and German. The only difficulty here lies in the fact that, unfortunately, the modern language teachers are not agreed as to the sort of reading which they desire their students to pursue. Some colleges require almost anything that is French or German, while others have an unreasonable preference for "books of the day." Indeed, the passages in French and German which are sometimes set for translation, show a strangely grotesque conception of what the average student ought to know. The present writer recalls a passage given not long ago by a board of examiners which would probably not have been translated correctly nor even comprehended by a cultivated Frenchman.

It was from Victor Hugo and was full of the most technical terms. Moreover, Hugo himself had misunderstood the true meaning of certain of these terms, so that this whole passage was a caliginous absurdity. What would be thought of a professor of English in France who should ask a boy to translate offhand a bit taken from Kipling's *Ship that found herself* or from *McAndrew's hymn*?

Teachers of French and German should consider how much they have to gain by coming to some agreement that will make the preparation of a vocabulary like this one of Professor Lodge's a possibility for them. If they could all unite upon a group of standard authors, the problem would be solved with the greatest ease. Reform in this matter is certain to come before very long, and when it comes it will not only unify all the language teaching that is done in American secondary schools, but it will be an immense relief to the teachers themselves and will put the whole structure of our elementary linguistics upon a truly scientific basis.

HARRY THURSTON PECK .

COLUMBIA UNIVERSITY

II

TEACHING THE MOTHER TONGUE IN FRANCE ¹

In so far as ideals can be transported from one literature to another, we may say that the ideal of prose-structure in modern European languages is directly derived from Greek models; the teaching of rhetoric or composition transmitted to us thru medieval times is, at any rate, derived historically from the teaching of Greek rhetoric; and we must trace it, in the briefest outline, from its origin.

It is to be remembered that Greek rhetoric had primarily in view a technical object; it was the object of the orator to win a case in the law courts or to convince an assembly; he was addressing a particular audience with a definite aim. He had his facts to start with; he had (1) to consider arguments in support of his case; (2) to arrange those arguments; and (3) to clothe them in suitable language. What was true of forensic oratory was also true of other forms of oratory—the orator speaks with a definite object in view.

In accordance with the classification of Aristotle there were thus three main elements in rhetoric: (1) *invention*, or the discovery of arguments; (2) *arrangement*, or disposition of the facts and arguments in possession of the orator; (3) *diction*, or the choice of words. But the name rhetoric was soon extended to the teaching not only of oratory but of composition in various kinds, and in Rome it became the chief subject of the school curriculum. The most elaborate classical treatise on the subject, Quintilian's *Institutes of oratory*, is essentially a book for the schoolmaster; the author is as much preoccupied with problems of teaching as with problems of criticism. The methods of the Greeks, transmitted thru Roman writers, Cicero and Quintilian, and especially Hermogenes

¹ A chapter from *The writing of English*, by P. J. Hartog. Oxford: Clarendon Press, 1907.

and Aphthonius (who wrote in Greek), were those practised in the Middle Ages; and rhetoric formed with grammar and logic or dialectic the *trivium* or first part of the medieval course in Arts.

In the development of rhetoric there is one feature to be noticed, of fundamental importance from the point of view of the schoolmaster. The first examples of rhetoric were, as we have seen, speeches written with a definite object and for a definite audience, and the "rules" of rhetoric were derived in true scientific fashion from the study of the great orations which preceded the formation of a conscious art. But as the subject was developed in the schools these rules were applied to almost every form of prose composition.² The fable; the *argumentum*, or invented story; the historical narrative; the critical discussion of the credibility of a narrative, with arguments for and against; the panegyric of a famous man or denunciation of a wicked one; the comparison of characters, good and bad; the commonplace (generally a denunciation of vice, as illustrated in a particular type of man, e.g., "a poor gamester," "a licentious old man"); the essay, or thesis, drawn from the comparison of things, e.g., "whether a country or city life is more desirable," "whether the merit of a lawyer or a soldier is the greater"; the essay without comparisons (*suasoria*), e.g., "whether a man ought to marry," "whether political offices should be sought"; the discussion as to causes, e.g., "why Cupid was thought to be a boy"; the praise or censure of laws: such are the various exercises enumerated by Quintilian. He ends his chapter with a discussion on the best form to be used on speeches modeled on those of public life.

Now it is evident, first, that these exercises, from their nature, must have been for the most part remote from the experience of the Roman schoolboy; and, secondly, that they were written

² See Quintilian, *Institutes*, translated by Rev. J. S. Watson (Bell, republished 1903), II, c. iv. Quintilian is not only important as an early inspirer of education; his influence constantly exerted itself afresh, in France no less than in Italy, Germany, and England. See on this point W. H. Woodward's *Education during the Renaissance* (Cambridge, 1906), p. 9, 37, and *passim*.

for no particular object and with no particular audience in view. The chief textbook of rhetoric in the Middle Ages was the *Progymnasmata* of Aphthonius, originally a slender volume, which gradually increased in bulk with the exercises added to it by successive editors. The method of dealing with the various forms of exercise was more systematic than that of Quintilian. Thus, for instance, the elements of a narration are enumerated as six in number: the person acting, the action accomplished, the time, place, cause, and mode of the action; while the qualities of a good narration are set down as four: clearness, brevity, probability, proper choice of words.

This is all excellent in its way—obviously helpful to systematic thinking—but, alas, for the subjects of the exercise! In one late Italian edition of Aphthonius the subject chosen for a narrative is the amours of Venus and Mars;³ and the narrative is told four times over in different ways to illustrate especially the four qualities set forth above. Of all the exercises practised, that which came most into vogue was the intolerable *chria*, developed from a very simple exercise in the time of Quintilian to one of inordinate length. The *chria* was what we should now call an “essay” on the saying, or action, of a famous personage: e.g., “Plato used to say that the branches of virtue were produced from sweat and labor”; or “Pythagoras, when asked how long was the life of a man, after looking at himself for a moment, hid himself, thus showing that life was to be measured by a glance”; or “Diogenes, perceiving a licentious youth, struck his teacher, adding, ‘Why do you teach such things?’”

The usual treatment was somewhat as follows:—First the author of the saying was eulogized; then his words were paraphrased and developed, so as to bring out the meaning. Next the truth of the thought was established both positively and negatively, in the latter case by pointing out what results would follow if it were not true. Then came a comparison, an example drawn from history, confirmatory quotations from

³ *Essercitii di Aftonio Sofista tirati in lingua regolata Italiana da Oratio Toscanella. Aggiuntovi per tutto dal medesimo essempli chiarissimi* (Venice, 1578), p. 27-28.

standard authors, and finally a conclusion, which often took the form of an exhortation.⁴

The *sententia* was an essay on a somewhat similar model, the saying in this case, however, being quoted without reference to its author.

Carried down from school to school thru the Middle Ages, with the subjects of the exercises becoming more and more remote from the minds of teachers and taught, the study of rhetoric lapsed, deservedly lapsed, into unimportance before the growing and living philosophy of the schoolmen.⁵ In the thirteenth and fourteenth centuries rhetoric barely found a place in the curriculum as an "extra subject" in the schools of the Paris Faculty of Arts. It revived gradually during the fifteenth and early sixteenth centuries. Ramus, that famous Professor of the Collège de France and educational revolutionary, who lost his life in the massacre of St. Bartholomew, tells us that, after the years of study devoted to grammar and rhetoric were over, the teachers, with threats on their lips and cane in hand, forbade their pupils to read the poets or orators.⁶

The intellectual movement of the fifteenth and sixteenth centuries brought with it everywhere a renewed admiration for the literary models and teaching methods of Greece and Rome and a new enthusiasm for the mother tongues not easy to reconcile.⁷

* See A. S. Wilkins: *Roman education*, 1905, p. 78; Prof. Wilkins has here almost exactly the translation of Aphthonius himself.

* See C. Thurot, *De l'organisation de l'enseignement dans l'Université de Paris au moyen âge*, 1850, p. 78. M. B. Hauréau (in the *Journal des savants* for 1891, p. 502) regards the decadence of the teaching of Latin in France as dating from the end of the twelfth century. "In the twelfth century," says Dr. Rashdall (*The universities of Europe in the Middle Ages*, Vol. I, p. 67), "the revived classicism . . . was simply crowded out in the conflict of studies."

* *De studiis philosophiae et eloquentiae conjungendis* (1546), quoted by A. F. Théry, in his *Histoire de l'éducation en France depuis le cinquième siècle jusqu'à nos jours*, 1858, Vol. II, p. 24-5. See also an interesting passage with regard to the reform in this matter which took place in the sixteenth century in Ramus's *Avertissements sur la reformation de l'Université de Paris, au Roy*, 1562, reprinted in the *Archives curieuses de l'histoire de France*, by L. Cimber et F. Danjou, 1^{re} série, t. v, p. 148 (Paris, 1835).

* My friend Professor Tout points out that the classical erudition which

While national literatures were bursting into fresh life in the outer world, the literary theories of Aristotle, Cicero, and Quintilian and the literary exercises of their Greek pedagogic successors were revived and practised with diligent ardor in the schools, in England as well as in France and Germany.

By the Cambridge statutes of 1549, the lecture on Terence was replaced by one on rhetoric, and the *trivium* was completely recast. The statutes directed the Professor to use the works of Aristotle, Cicero, Quintilian, and Hermogenes.⁸ Under Elizabeth the place previously occupied by mathematics was "engrossed by rhetoric, and . . . altho the lecturer was enjoined to deliver his discourses in the vernacular, the treatment of the subject was purely traditional,"⁹ that is, dealt purely with classics. By the Oxford Statutes of 1636, the lecturer in rhetoric was "twice every week, that is to say, on Mondays and Thursdays, and also at 8 o'clock in the morning, publicly to explain the rhetoric of Aristotle, Cicero, Quintilian, or Hermogenes, and to raise such comparisons among them, as out of them to reduce the precepts of the art to a single body."¹⁰

Two of the chief English educational reformers, Mulcaster¹¹ in 1582 and Brinsley thirty years later, it is true, advocated the cultivation of the mother tongue at least on equal terms with Latin. Brinsley, in his *Ludus literarius: or, The Grammar*

was one result of the revival of letters itself tended indirectly to stimulate the use of the vernacular for scientific and learned works. It brought into discredit the living and flexible Latin which had been in common use by all European scholars thruout the Middle Ages and down to the sixteenth and seventeenth centuries, and set in its place a Neo-Ciceronian Latinity unsuited to the expression of new ideas and only to be handled with ease by a few exceptional men like Erasmus and Sir Thomas More. Thus the limitations of "classical" Latin must be counted among the reasons for the abandonment of Latin as an international medium of scholarly intercourse, tho even more powerful factors contributed to the same end. See also on this point M. F. Brunot, in Petit de Julleville's *Histoire de la langue et de la littérature françaises*, Vol. III, p. 641.

⁸ *The University of Cambridge from . . . 1535 to the accession of Charles I*, by J. Bass Mullinger, p. III.

⁹ See Mullinger, *loc. cit.*, p. 401-403.

¹⁰ *Oxford University statutes*, translated by G. R. M. Ward, 1845, i, 20.

¹¹ R. H. Quick's *Educational reformers*, second edition, p. 534.

schoole (1st ed., 1612), makes indeed quaint suggestions for the teaching of English on the model of Latin. Nothing could be more curious or comic than the simple Ciceronian letters in English which Brinsley gives as models for his pupils.

But the precept of the English reformers, like that of their German colleagues of the seventeenth century, Ratke and Comenius, was unsupported by example. The teaching of rhetoric in England, out of touch with the great Elizabethan movement of literature (a movement, it is to be remembered, chiefly poetic), and animated by no breath of teaching genius, was doomed to failure. How empty it had become by the end of the seventeenth century we know from the scorn that Locke pours on it in his *Essay*, published in 1690, and in his *Thoughts concerning education*, published in 1693.

In the *Essay* he denounces it as an art that serves only to "insinuate wrong ideas, move the passions, and thereby mislead the judgment" (an inheritance from its origin in the Greek Law Courts, hard indeed to get rid of), altho he admits that it includes "order and clearness."¹³

In the *Thoughts*, changing his mood, it is on the utter futility of the teaching as a means of education that he dwells, and on the poverty-stricken use of the English tongue by English people. He points to the example of neighbors who have "not thought it beneath the publick care to promote and reward the improvement of their own language," and among whom there is "a great ambition and emulation of writing correctly." He attributes the spread of French, which, but a few reigns before, was "one of the worst languages, possibly, in this part of the world," to the new movement in France, and finally he points out, as Rollin was to do later to more purpose, that the supposed imitation of classical methods was no real imitation at all, since the Romans daily exercised themselves in their mother tongue, while the Greeks were "yet more nice in the use of theirs." His suggestions for reform were admirable, but his adverse criticisms alone seem to have been effective. In 1712, Steele tells us that the Universities had

¹³ *Essay on the human understanding*, Book III, chap. x, § 34.

grown "dumb in the study of eloquence."¹⁵ From the context Steele obviously refers to spoken eloquence rather than written, but the study of the two went hand in hand. Public discussions and dissertations no doubt continued for a time to afford opportunity for exercise in Latin composition, but the traditional teaching of rhetoric became extinct, and Latin composition has actually come to mean translation from English into Latin. Nothing could more effectually mark the decay and death of the traditional teaching of rhetoric in England.

In France, by the end of the seventeenth century, the state of affairs was very different, different in the schools, different among men of letters. Whereas in England the masters taught "as if the names of the figures that embellished the discourses of those who understood the art of speaking were the very art and skill of speaking well,"¹⁶ the French had come to lay stress on the larger and more essential of the constituents of style differentiated in the classical treatises; on *invention*, the discovery (and choice) of materials, and on *disposition*, the orderly arrangement of those materials, rather than on *diction*, the choice of words. "Let it not be said," writes Pascal in a famous passage, "that I have said nothing new; the order of my matter is new. At tennis the two sides play with the same ball, but one places it better. . . . As if the same thoughts did not form a different body by a different arrangement of the discourse just as the same words form different thoughts by being differently arranged."¹⁷ The credit is not to be attributed to the French alone. The *Ratio et institutio studiorum*, issued by the Jesuits in 1599, under the generalship of an Italian, Aquaviva, infused new life into the teaching of rhetoric by the variety of the literary exercises and the thoroughness of literary criticism which it prescribed for the curriculum of the schools.¹⁸

¹⁵ *Spectator*, September 15, 1712. I owe this reference to the late Sir Richard Jebb, whose important article on "Rhetoric" in the *Encyclopædia Britannica*, ninth edition, should be consulted for the history of the subject.

¹⁶ Locke, *Thoughts*, § 189.

¹⁷ *Pensées*, ed. E. Havet, fourth edition, Vol. I, p. 99.

¹⁸ Cf. G. Compayré, *Histoire critique des doctrines de l'éducation en France* (Hachette, 1879), Vol. I, p. 193; Vol. II, p. 418-19, and *passim*.

This systematic teaching was, it is true, almost entirely in Latin and dealt only with Latin and Greek; the Jesuits used the mother tongue in their schools as a means of teaching the classics, and they used it to the minimum extent; in France, as elsewhere, they regarded the national literature as full of danger. But it was mainly their pupils, Descartes and Bossuet,²⁰ Corneille and Molière, and later, Fontenelle, Montesquieu, Voltaire, who brought into French the "lucid order" and perfection of form learnt from a study and practise of Greek and Latin inspired by the *Ratio studiorum*. In the rival congregation of the Oratory,²¹ which produced Malebranche and Massillon, French was used much more freely; and in the famous but short-lived schools of Port Royal (1643-60), associated with the names of Pascal, Nicole, and Arnauld; the schools of which Racine was a pupil, it became the definite object to teach the mother tongue before Latin and for its own sake.²² The secondary schools of the University, which belonged to the Faculty of Arts, kept, like the Jesuit schools, to Latin. It was not till the end of the seventeenth century that Hersan²³ and his celebrated pupil, Rollin, *le bon Rollin*, introduced "French rhetoric" into the official schools of the University of Paris. "Port Royal," says Sainte-Beuve,²⁴ "penetrated into the University thru Rollin."

²⁰ Bossuet, writing, about the year 1670, on the style of the orator, says: "J'ai peu lu de livres françois; et ce que j'ai appris du style en ce second sens, je le tiens des livres latins, et un peu des Grecs; de Platon, d'Isocrate, . . . de Démosthène, . . . ; de Cicéron . . . Les poètes aussi sont de grand secours. Je ne connois que Virgile, et un peu Homère." (*Sur le style et la lecture des écrivains et des pères de l'église pour former un orateur*. Œuvres, ed. F. Lachat (1862-6), Vol. XXVI, p. 108 *et seq.* Referred to by Compayré, *Histoire critique . . . de l'éducation en France*, Vol. I, p. 318.

²¹ Cf. Paul Lallemand, *Histoire de l'éducation dans l'ancien Oratoire de France* (Thorin, 1888).

²² Cf. F. Cadet, *Port Royal education*, trans. by A. D. Jones (Sonnen-schein, 1898), p. 154 *et seq.*

²³ Cf. Lantoine, *Histoire de l'enseignement secondaire au 17^e et au début du 18^e siècle*, 1874, p. 212. Gaullier, regent of rhetoric at the Collège du Plessis, also claimed to have anticipated Rollin in this respect.

²⁴ *Port Royal*, fifth edition, Vol. III, p. 511. M. Gréard, in his *Éducation et instruction: Enseignement secondaire*, Vol. II, p. 27 (1889), relying on a passage in the *Traité des études* (Discours préliminaire, II, iii, Observa-

In 1719 Rollin, in the course of an official Latin address, presented to the Regent on behalf of his University, demanded that the teaching of French as a classical language (which he had himself practised at the Collège du Plessis) should be introduced officially into the public schools.

Rollin, while an advocate for the teaching of style, is a faithful disciple of Bacon, of Comenius, and of Port Royal. "To value things," he writes, "rather than words; to prefer thoughts to the ornament of thought; to find in sound judgment a safeguard against the dangerous sweetness of that polished style which pleases youth only because it has the lightness of youth . . . these are the impressions which we endeavor to instil from the earliest childhood, so that the mind may seem to owe only to itself what comes from a fortunate habit, and may be fitted for every kind of work to which we destine it in the future."²⁵ By a curious inconsistency, Rollin, in the context, lays more stress on grace of mind than on solidity.

In 1726, in the first edition of his *Traité des études*, Rollin laid down the lines on which French should be studied, and recommended certain authors as classical.²⁶ In 1728, Buffier, a Jesuit, following suit, published a French rhetoric.²⁷ We shall see later how the teaching methods of the Jesuits and of Rollin are practised in France at the present day.

Turning from the schools to the writers themselves, we

tions particulières), points out that Rollin's *general* plan was not a new one, but a summary of the practise of the University. As far as French teaching was concerned, Rollin claims novelty, and his services as an innovator are recognized. The most complete account of Rollin and his work is given by M. H. Ferté in his *Rollin, sa vie, ses œuvres, et l'université de son temps* (Hachette, 1902; out of print).

²⁵ Cf. Lantoine, *loc. cit.*, p. 245-6.

²⁶ *Traité des études*, Book II, chap. i.

²⁷ Buffier, *Suite de la grammaire française, ou Traité philosophique et pratique d'éloquence*; republished in 1732 as part of a comprehensive system of education in grammar, rhetoric, and philosophy, entitled *Cours de Sciences* (*sic*), etc. How far Buffier's methods were used in Jesuit schools it is difficult to say. Father C. Daniel, S. J., in his *Les Jésuites instituteurs de la jeunesse française au 17^e et au 18^e siècles* (1880) and Father R. Schwickerath, S. J., in his *Jesuit education* (Freiburg i. B., 1903), contest Compayré's account of Jesuit views on this point.

find a difference between France and England, not less significant in regard to the question in hand. From the seventeenth century onward France has possessed a series of great writers uniting critical with creative genius, the essential for the formation of a true school of prose. The rise of the French Academy, incorporated in 1635, has been quoted as a proof that this union of powers is a national characteristic; its continued existence and authority, in spite of the perils of the official spirit in literature, afford evidence of the fact more conclusive still.

It is difficult to over-estimate the action that this combination of authority, originality, and critical power must have exercised on the hierarchic mind of the French schoolmaster and indirectly on his pupils. Moreover, putting the institution itself aside, we find that three of its members who contributed largely towards the creation of modern French prose, Bossuet, Fénelon, and La Bruyère, were themselves teachers, and deeply influenced in their writing by the temperament of the teacher. Fénelon in his *Letter* to M. Dacier of 1714, generally known as the *Letter to the Academy*, proposed that the dictionary of that body should be followed by a rhetoric and a poetic, among other works.²⁸ The pre-occupation of teaching constantly recurs in the great French writers. What, indeed, to go back in history for some years, could be more significant than the fact that Racine's greatest masterpieces, *Esther* and *Athalie*, were written for the pupils of Madame de Maintenon's school at St. Cyr?

In the great period of English literature, the period of Shakspeare and of Milton, we have nothing analogous. The critical school of Dryden and of Pope follows that of the French. "By the enhancement," says a recent writer, "of form, definition, finish, and the other characteristic virtues, classicism [transmitted by France] did us immortal service. For these are the qualities which the English have not got

²⁸ M. G. Lanson, in his *Principes de composition et de style*, quotes Montaigne and Fénelon as the two writers who have lost nothing by being unmethodical; but points out how admirably Fénelon in his *Letter* appreciates the necessity for order in writing.

naturally, but which they have always shown themselves ready to learn." ²⁹ The readiness to learn displayed in our literature was not displayed in our schools. In Milton's theoretical *Tractate*, which might perhaps be brought forward here, we find a training in the art of writing English relegated to that distant point in a youth's education, placed by Milton at the age of twenty-one, when he is "fraught with an universal insight into things."

The currents of literary teaching and of literature formed in France one stream. The teaching divided from the literature must have become pedantic and stagnant. It did so, as we have seen, in England.

How far was Rollin successful in actually spreading the teaching of the mother tongue in the official schools? how far was such teaching introduced into the rival schools of the Jesuits? That Buffier should have been permitted to publish his book, obviously intended for schools, showed that Jesuit policy was changing, but the change could not have progressed far. The scanty treatment of the mother tongue originally prescribed by the *Ratio studiorum* remained unaltered until its revision in 1832. That a real beginning had been made in the University of Paris by 1750 is shown by the direct testimony of D'Alembert, who, in his scathing denunciation in the *Encyclopédie* ³⁰ of the teaching of rhetoric and philosophy, mentions the fact, and has a good word to say for Rollin. D'Alembert says nothing of such teaching in other schools.

But there is testimony with regard both to the Jesuits and the University of another and more detailed kind. The long and bitter struggle between the Jesuits and their rivals, academic, ecclesiastical, and political, was ended in 1762, a little more than twenty years after Rollin's death, by the expulsion of the Society from France. It became necessary to reorganize their schools, and Rolland d'Erceville, Guyton de

²⁹ Professor Oliver Elton, *The Augustan ages*, p. 322.

³⁰ In the article *Collège*. The denunciation was repeated by Diderot in his *Plan d'une université pour le gouvernement de Russie*, written about 1775 (*Œuvres complètes*, ed. J. Assézat, Vol. III, p. 435).

Morveau, and La Chalotais, in three famous reports presented to the Parliaments of Paris, Dijon, and Rennes, respectively, set forth the doctrines of liberal educational reform of the mid-eighteenth century, and forcibly indorsed the views of Port Royal and of Rollin, as opposed to those of the Jesuits, with regard to the necessity of teaching the mother tongue universally.

The report of Rolland³¹ is especially valuable from the historical point of view, for it summarizes memoirs on the subject prepared by the various universities within the jurisdiction of the Paris Parliament, viz., Paris, Rheims, Bourges, Poitiers, and Orleans, in obedience to an order issued on September 3, 1762.³² Rolland tells us that the educational policy of all these universities was practically the same, and that for convenience's sake he quotes chiefly from the report of the University of Paris. To Rollin's treatise he refers as "*l'inestimable Traité des études de Rollin, ouvrage que l'Université de Paris se fait gloire de reconnoître.*"

"The University," he says, "wishes the teachers to take their inspiration from the principles of Aristotle, Dionysius of Halicarnassus, Hermogenes, and Longinus, or, at any rate, that they should derive their principles from those of Cicero and Quintilian; that with the help of these authors they should draw up a manual of rhetoric (*un abrégé de Rhétorique*) or should adopt the work of some author of repute. Until a

³¹ *Compte rendu aux chambres assemblées, par M. Rolland, des différens mémoires envoyés par les universités sises dans le ressort de la cour, en exécution de l'arrêt des chambres assemblées, du 3 Septembre 1762, relativement au plan d'étude à suivre dans les collèges non dépendans des universités et à la correspondance à établir entre ces collèges et les universités. Du 13 Mai, 1768.* The Parliament of Paris, in reality a supreme Court of Justice, with certain administrative functions, was divided, like the present *Cour de cassation*, into different Chambers, each of which had a number of presidents. Of these presidents, Barthélemi Gabriel Rolland d'Erceville was one of the most distinguished and active.

³² M. L. Liard, in his masterly and authoritative work, *L'Enseignement supérieur en France, 1789-1893*, quotes the plan presented by the professors of rhetoric on this occasion (*Pièces justificatives*, Vol. I, p. 333), but it does not seem to have been considerably modified in the form sent in to the Parliament and used by Rolland. For the author's estimate of the official teaching of rhetoric in the Paris schools, see Vol. I, p. 51-2.

rhetoric commanding universal assent shall be published, they may use either the treatise entitled *Præceptiones rhetoricæ*, or that entitled, *Rhetorica juxta Aristotelis doctrinam dialogis explicatam*. The University also recommends the *Traité des études* of M. Rollin, of which the second volume may, according to the University, be regarded as the real University textbook of rhetoric; and on January 4, 1766, the Tribunal of the University, incited thereto by a resolution of the *bureau d'administration* of the Collège Louis le Grande²³ of December 5 preceding, resolved 'that it being established that the *Rhétorique fran oise* composed by M. Crévier had been submitted to [certain] academic persons before being printed, it could not be too highly recommended to those who desired to follow good doctrine (*les bons principes*).'" Crévier's rhetoric, it may be said, follows the plan laid down by his master and friend, Rollin, and the author justifies, as a novelty, the use of French examples instead of Latin to illustrate the principles of rhetoric. We see that in the University of Paris "French rhetoric" had, by the middle of the eighteenth century, taken its place definitely beside the teaching of the classics.

Guyton de Morveau, the famous lawyer and chemist (and at a later date the colleague of Lavoisier), in a memoir presented to the Parliament of Dijon in 1762, put the case for the teaching of French on grounds even more weighty than the love of the mother tongue itself; I mean the intellectual advantage to the pupil. His argument is not out of date in England today. Is it not evident, he asks, that a youth will hear with greater curiosity and interest, that he will grasp with greater ease and justness, comments on a French text, than on a book which must be translated slowly, so that with each passage he loses sight of the preceding one, and that, with the insistence on each passage separately, the beauty of structure and necessity of the whole piece remain altogether unsuspected? What notion, he asks, can the pupil have, under such conditions, of the *invention* and *arrange-*

²³ Once the largest of the Jesuit schools.

ment of the author? ³⁴ The argument for the use of the mother tongue is furnished hardly less cogently in the essay on national education, presented to the Parliament of Brittany, by that other famous and strenuous adversary of the Jesuits, La Chalotais. ³⁵

In the reforms of the *parlementaires*, as they are called, the question of the mother tongue was only an item, tho an important one; they wisht above all to establish a national system of education, in which the universities would have played their part. But the French universities of the eighteenth century, unlike those of Germany, proved irresponsive to the stimulus of the time. The great intellectual movement of France, which provided the Revolution with the first scientific men of the world, took place outside the universities; and with the new changes the French university system, including its system of secondary schools, came to an end. From 1789 to 1795 the universities were gradually disintegrated by transitional legislation. ³⁶ In the latter year the system was definitely swept away, under the Convention, and the *Écoles centrales*, with a six years' course for pupils of from 11-12 to 17-18, became the secondary schools of France, by the law of the 7 *ventôse*, an III (February 25, 1795). ³⁷ Their organization was somewhat modified a few months later by the law of the 3 *brumaire*, an IV (October 25, 1795).

The study plan of the *Écoles centrales* was extravagantly encyclopedic; and "general grammar" seems to have replaced in them the greater part of the literary training in French of the later schools of the Monarchy. ³⁸ One of the teachers,

³⁴ I have translated, with some little freedom, from the text of Guyton de Morveau as quoted by Rolland, *loc. cit.*, p. 73. Guyton de Morveau's Essay is not in the British Museum.

³⁵ Caradeuc de la Chalotais: *Essai d'éducation générale ou plan d'études pour la jeunesse*, 1763.

³⁶ See Liard, *loc. cit.*, Vol. I, p. 221 and *passim*.

³⁷ On these schools see, primarily, Liard, *loc. cit.*; see also Albert Duruy, *L'Instruction publique et la Révolution* (1882), particularly with reference to the present subject, p. 223-5, and his critic, G. Compayré, in his *Histoire de la pédagogie*. M. F. Picavet, in his authoritative work *Les idéologues* (1881), brings forward incidentally many new documents relating to the *Écoles centrales*.

³⁸ In the revised curriculum, the school life was divided into three periods

writing in the *Décade philosophique*, protested that French should be taught, not from dry and revolting grammars, but from the *Provincial letters* of Pascal, the *Funeral orations* of Bossuet, the *Mondes* of Fontenelle, with selections from Racine, Boileau, Rousseau, and Voltaire; and that the pupils should leave the school possessing not universal knowledge, but the power of teaching themselves.³⁹ The result of the literary teaching of the *Écoles centrales* was a failure.⁴⁰

But apart from the question of the mother tongue and of the general curriculum, and in spite of merits of detail, the whole system of secondary and higher education founded under the Revolution failed to realize the splendid and liberal ideas of its founders. "What was dreamed, announced, and desired by the men of the Revolution was a system of higher education corresponding in breadth and in co-ordination to the sciences themselves; the result of their efforts was a system devoid of internal cohesion, made up of compromises, inferior, and undoubtedly contrary to, their own ideal."⁴¹ The need for further reform was fully realized under the Directory; and Napoleon, as First Consul, in 1802, set the whole system of secondary and higher education on a new basis, in which the *Écoles centrales* were replaced by the *lycées* that we know today. Napoleon took at first a simple view of the curriculum of the secondary school; for each *lycée* he prescribed four teachers of Latin and four of mathematics; that was all!⁴² But in the law for the reorganization of secondary teaching of the 11 *floréal*, an X (May 1, 1802), of which the draft was repeatedly submitted to him by Fourcroy, the views of Rollin again triumphed, and French was

of two years; the first for drawing, natural history, ancient and modern languages; the second for the elements of mathematics, physics, and experimental chemistry; the third for general grammar, belles-lettres, history, and legislation.

³⁹ See Picavet, *loc. cit.*, p. 55-6.

⁴⁰ Liard, *loc. cit.*, Vol. II, p. 9.

⁴¹ Liard, *loc. cit.*, Vol. I, p. 253.

⁴² Guizot, *Essai sur l'histoire et sur l'état actuel de l'instruction publique*, 1816, quoted by Liard, II, 19. Napoleon fully recognized later the place of the mother tongue in the secondary schools, tho he denied it a place in higher teaching. Liard, II, 100-2.

placed in the *lycées* on an equality with Latin. The Commission appointed by order of the 27 *frimaire*, an XI (December 18, 1802), declared that the honor of the mother tongue was avenged.—*L'honneur de la langue maternelle est bien vengé.*⁴³

It is beyond the scope of the present work to follow out completely the changes in the programs of French secondary schools since 1802, for details of which, down to the year 1888, reference may be made to the two volumes dealing with secondary education in M. Gréard's classical work, *Éducation et instruction.*⁴⁴

It can not be said that the mother tongue during the whole of this period was treated on an equality with Latin. According to the study plan of 1821, French composition was not taught as a specific subject till the age of fifteen (*classe de seconde*);⁴⁵ under the Second Empire not till the age of sixteen (*classe de rhétorique*), when, however, it at once assumed the greatest importance, the *discours français* being ranked as of equal weight with the *discours latin*. It is, however, clearly to be borne in mind that the Latin composition practised in all the higher classes of the schools meant, as in the schools in which Bossuet was trained, Latin composition, and not translation into Latin, that it involved "invention" and "arrangement" as well as "diction."⁴⁶

In the course of time the useful smaller exercises prescribed by the Jesuits, by Port Royal, and by Rollin, had disappeared, the compositions of the *classe de rhétorique* consisted chiefly in imaginary speeches, and pupils who had never during their seven years of school-life been asked to express an idea of their own in French were suddenly asked to put speeches into the

⁴³ See an interesting article, "La réforme de l'enseignement secondaire sous le Consulat," by M. Paul Gautier, in the *Revue universitaire* for October, 1898, p. 218-30.

⁴⁴ Published by Hachette, 2d edit., 1889.

⁴⁵ Kilian, *Tableau historique de l'instruction secondaire en France*, 1841, p. 157.

⁴⁶ On the "modern" side of French secondary schools the place occupied by the mother tongue in the curriculum has always been a large one. What corresponds to an English "modern" side was first called *enseignement spécial*, later, *enseignement moderne*, and has now become the *Section sciences-langues vivantes*, under the study plan of 1902.

mouths of Saint-Bernard, Richelieu, Louis XIV, Turgot, Mirabeau—all the great personages of French history.⁴⁷

M. Jules Simon, in the remarkable circular which he issued, as Minister of Public Instruction, in 1872,⁴⁸ complains that in the lower classes a pupil was only permitted to plan a composition and to express his thoughts if he wrote in Latin verse or Latin prose. . . . Why, he asked, should they not reach the most difficult form of composition, the speech, by means of graduated exercises; and why practise the speech only, a form responsible no doubt for the empty declamation and disdain for exact information with which their countrymen were reproached. It is significant that this was written in the year after the "empty declamation" which led France to make war with a light heart.

A familiar letter, M. Simon argues, or the simplest of stories, will second the moral influence of the teacher better than a translation or a discourse, and will bear naturally on modern life, its needs and its duties. "Our pupils must not forget that we must never speak for the sake of speaking, or write for the sake of writing; but that we only speak or write to narrate a fact or to express a just idea." M. Simon expressly enjoined the teaching of the mother tongue right thru the school, and this régime has continued down to the present day. The liberal spirit of the reform of 1872 excited protest from the reactionaries; but the new ideas triumphed finally with the reform of 1880 under M. Jules Ferry, and the principles of the reform were set forth in a statement annexed to the study plan of that year by the *Conseil Supérieur de l'Instruction publique*, of which M. Gréard, in his capacity of Vice-Rector of the University of Paris, was President.⁴⁹

The text of the relevant paragraphs must be quoted:

1. *Dans tout le cours des études et dès les premières classes*

⁴⁷ See the admirable chapter "Du discours latin et du discours français" in the book of that veteran reformer and scholar, M. Bréal, *Quelques mots sur l'Instruction publique*, 1872, p. 238-54.

⁴⁸ *Bulletin administratif du ministère de l'Instruction publique: Circulaire à MM. les proviseurs sur l'enseignement secondaire*. 27 Septembre, 1872.

⁴⁹ *Bulletin administratif*, etc., for 1880, p. 974 et seq.

l'enseignement aura pour objet de développer le jugement de l'enfant en même temps que sa mémoire et de l'exercer à exprimer sa pensée. . . .

5. *L'étude de la langue française, durant la première période triennale sera rattachée aux diverses connaissances élémentaires qui y prennent place, et s'en inspirera dans les divers exercices de la classe. En outre, des exercices variés, écrits et oraux, sur la valeur et l'acception des mots, sur la propriété des termes, sur les tours et mouvements de phrases, et sur les premiers éléments de l'art d'écrire, avec une part déjà faite à l'invention dans ce qu'elle a de plus simple, permettront d'aborder en sixième le latin dans les conditions plus favorables pour l'intelligence et la traduction des textes.*

8. . . . *Les compositions françaises, distribuées et graduées dans les diverses classes, ne seront plus uniquement des narrations, des discours ou des lettres. Tous les sujets propres à entretenir l'habitude de la réflexion, à former le goût, à fortifier le jugement seront utilement employés aux exercices de la classe. Ils seront surtout littéraires en Rhétorique.*

On évitera l'abus des matières qui favorisent trop les amplifications stériles, et on habituera l'élève à trouver les principales idées de ses compositions.⁵⁰

In 1885 the formal teaching of the principles of rhetoric was abandoned, not without exciting regret;⁵¹ and the fusion of the classical and modern sides in the scheme of 1902 led finally to the sacrifice of the name *classe de rhétorique*,⁵² inherited from the Jesuits, for which *classe de première* was substituted. The class on the modern side corresponding to the classical *rhétorique* had long been known by this name.

⁵⁰ M. Compayré, in his *Histoire de la pédagogie* (1897), p. 401, regards these instructions as largely inspired by the theories of the Swiss educator, Father Grégoire Girard, author of the *Cours éducatif de la langue maternelle*.

⁵¹ See A. E. Chaignet, *La rhétorique et son histoire*, 1888, Preface, and O. Navarre, *La rhétorique grecque avant Aristote*, 1900, p. 329 *et seq.*

⁵² "Nous avons supprimé ce vocable vieilli, pour bien marquer que la fin de nos études secondaires n'était pas, comme ce mot pouvait induire à le penser, l'art de bien parler." Speech by M. Liard, delivered in the University of London; *Revue internationale de l'enseignement supérieur* for July 15, 1906, p. 560, and *Record of the visit of the University of Paris to the University of London*, . . . 1906 (Murray, 1907), p. 57.

The circulars of 1872 and of 1882 are of historic importance; they mark a definite step in the advance from the literary and dogmatic method of teaching the mother tongue to the scientific and individualist method, the passage from the use of such teaching as a method of cultivating the taste in literary subjects remote from life, to its use as a method of cultivating the individual judgment in dealing with the problems of every day.⁵³

The fact that school life is an integral and essential part of the national life, that methods of school training are an affair of statesmen as well as of ushers, has been realized in France for three centuries. The struggles of the Jesuits of the seventeenth and eighteenth centuries, first with Port Royal, and later with Rollin and the Universities (in which they taught their opponents so much), showed that they appreciated to the full the danger, from their point of view, that lay in the cultivation of the mother tongue. We recognize in them the secular conflict between "authority and anarchy," between "servitude and liberty," between "discipline and freedom," in which neither side has said the last word.⁵⁴ It is perhaps not possible yet to express, except in action, a reconciliation between these opposites.⁵⁵

It would be a mistake to suppose that the battle is over in France, that the official leaders of French educational thought have succeeded in carrying out their ideas to the full. The teaching of the mother tongue is still too literary, too remote from life, too declamatory, and the effects of such teaching are apparent. If proof were needed of this, we find

⁵³ For a protest against this system from the conservative point of view, see the interesting historical book, *Les études classiques avant la Révolution*, by the Abbé Augustin Sicard (Perrin, 1887), p. 113 and *passim*.

⁵⁴ Cf. Paulsen, *Geschichte des gelehrten Unterrichts*, 2d edit., Vol. I, p. 431.

⁵⁵ In England, where many persons of extreme conservative politics are individualists, we have unwittingly made the choice on the side of the seventeenth century Jesuits in regard to the use of the mother tongue; the intellectual training of our schools presents the sharpest possible contrast to their moral training, which offers such full opportunities for independent decision and action—another example of the "Two-mindedness of England," on which Mr. Sadler has written so admirably. But this point will be treated more fully later.

it, on the one hand, in the character of many organs of the French Press, obviously intended to appeal to a cultivated but easily satisfied public; on the other, in that admirable pronouncement of French Liberals, *L'Éducation de la démocratie*,⁵⁶ in which MM. Alfred Croiset and Gustave Lanson, men of letters of European reputation, have preached the necessity for scientific method in the teaching of literature. The addresses collected in this book were delivered in the winter of 1902-3, at a time of national stress, since happily relieved, and constitute a forcible appeal to the national conscience.

⁵⁶ *L'Éducation de la démocratie*, by MM. Ernest Lavisse, Alfred Croiset, Ch. Seignobos, P. Malapert, G. Lanson et J. Hadamard (F. Alcan, 1903): a series of lectures given at the *École des hautes études sociales*, in the years 1902-3. See also a book by M. Lanson, *L'Université et la société moderne* (A. Colin, 1902).

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III

WHY TEACHING REPELS MEN

It certainly does. In the seven years ending 1906 the number of men teachers in the United States decreased 24 per cent. Go to the nearest college and consult the seniors as to their plans; every man who means to take up teaching will apologize for it, the possible exceptions being men who are already confirmed teachers and have come to college to fit themselves for higher places. "What is the matter with young men?" asked a neighboring superintendent last year. "I want a teacher for our high school at twelve hundred dollars, no difficult specifications, just a bright young college graduate of good manners and a little experience, and I can't find him. When I was graduated there would have been plenty of men to jump at the chance. Now the promising men think they can do better."

It is not a matter of wages. Professionally fitted men teachers get a higher average salary than the average incomes of lawyers, physicians, clergymen, and business men in their communities. There are even beginning to be prizes for superior teachers. Salaries of \$5,000 are common, \$10,000 is not infrequent, \$20,000 has been offered several times; there have been private school principals who cleared \$100,000 a year. These figures, in connection with the fact that the teacher begins with a considerable salary instead of having to wait for years to establish himself, makes teaching financially attractive. The young man will not consider as he should that while years add to the earning capacity of the physician, the lawyer, the business man, in teaching it is the young man who is wanted and the teacher not permanently placed at forty or fifty is likely to find his occupation gone.

But four reasons make thoughtful young men hesitate.

First, it is a hireling occupation. A college president was once comparing his work with mine. "For one thing you are your own master," he said. "Yes," I replied, "it is a good many years since I have had to take orders from anybody." "That's just it," he mused thoughtfully; and tho he is one of the great college presidents, a man with whose work mine is not for a moment to be measured, I could see that in this respect he envied me.

That president is as little accustomed or likely as any man I know to be interfered with by his trustees, but the ordinary man teacher is entirely at their mercy. The law makes them the authority as to course of study, regulations, selection of teachers, equipment, and supplies. If there is a question of discipline either with his pupils or with his assistants, the trustees are the arbitrators. If he wants to be absent, even on business of the school, he must obtain permission. These trustees may be wholly ignorant of the needs of the school; one or more of them may be personally prejudiced against him because he has held their children to obedience; yet their decision is final. His plans for the school may reach far into the future, and at the end of any year he may find himself dismissed.

What is worse, to be dropt is often permanent loss of occupation. Teaching is the only business over which the state has a monopoly. An attorney or an architect discharged by a school board may start in business for himself in the same town, but a teacher who is dismissed from one school in the city is dismissed from all of them and must go elsewhere. Hence, teachers are wanderers; they buy a home only at the risk of being compelled any year to give it up. They are in a state of dependency upon trustees elected to office without special knowledge of the needs of the schools or the relative qualifications of teachers.

Outside of the board of education that directly employs him, the community feels authorized to dictate whether he shall smoke or dance or play cards or call on a lady twice a week. The present principal of the high school at Newark, N. J., lost a place in Cortland normal school because when

he applied he was wearing a red necktie; the chairman of the committee disliked red neckties.

In this respect the clergyman is in some ways worse off than the teacher. The community feels authorized to criticize the teacher because it pays his salary, but it is compelled to pay it by law. Church members pay the minister's salary voluntarily and may at any time stop the contribution, so they can enforce their criticism. In this age of skepticism and irreverence I do not see how any man can enter the ministry except from a genuine sense of consecration. The only excuse for becoming either a clergyman or a poet is that one can't help it.

But it is otherwise with the lawyer, the physician, the business man. Provided they earn enough to keep out of debt they are their own masters. They can come when they like, go when they like, do what they like. This appeals to the young man choosing a career, and it ought to.

Second, teaching is looked down upon in the community. We might as well face this fact. "When A. was principal of a grammar school," said the head of a normal school, "he would run across the street to shake hands with me. Now that he has past his law examination and hung up his shingle, he expects me to run across the street to shake hands with him." In other words A. feels that to be at the tail of the law is higher than to be at the top of teaching.

All the rest of the community patronize the teacher. In 1868 Colonel Homer B. Sprague was principal of the Meriden high school. He was elected to the legislature as an advocate for the re-establishment of the Connecticut state normal school, and he came down to New Haven to get a substitute for the spring term. The lot fell on me; he drew \$200 a month and paid me half of it. At the end of the first month I went with him to the treasurer of the board, and I shall never forget how he was snubbed by this man, a shoemaker on his leather-seated bench patching a woman's boot. Colonel Sprague had been a shining man in a shining class, he had a brilliant army record, he was a mellifluent orator, and yet because he was a teacher this cobbler handed the district money to him grudging-

ingly as tho he were a personal employee, overpaid for unsatisfactory work.

The teacher may have a personality that commands respect in spite of his calling, but as a teacher and outside of his especial work he is regarded by business men slightly, as an improvident visionary, thinking in a world of imaginary conditions, like Alice in Wonderland. Experience confirms this judgment. You know a good many men who have given up teaching to go into business; how many of them who had been ten years in the schoolroom have succeeded in business? You have had a good many kinds of people on your school board; do you happen to call to mind any sort of a person you would not prefer to a retired teacher?

Even college positions carry little honor. "Are you connected with Syracuse University?" was asked of one of the instructors. "In a way," he replied, "but the connection is very slight: only six hundred dollars a year." A full professor has a little more standing in the community, ranking perhaps with a corner groceryman out of politics. If he is an authority the world over on some subject, he is even looked on with mild awe, like the aurora borealis, phenomenal but impractical.

This is shown from the fact that the teacher is so seldom elected to a place of responsibility not educational. "Oh, but look at the high school principal of Lancaster elected mayor, and the deputy superintendent of public instruction elected secretary of state in Pennsylvania!" you cry. Yes, you who live in Pennsylvania point to those two men, and if you lived in Illinois or Louisiana or Arizona or Oregon, and were well informed, you would point to the same two men. Why? Because they are the only ones. There are 110,000 men teachers in the United States and two of them have been elected to responsible public places; the exceptions are so rare and noteworthy that they prove the general rule that teachers are not so trusted. "At your age George Washington had mastered mathematics," remarked a teacher to an unsatisfactory pupil. "And at yours he was president of the United States," was the retort, and it stung. In any gathering of

teachers in New York let the question of the influence of the teacher in the community come up and the first name mentioned will be that of the superintendent at Yonkers. Why? Because influence of a teacher in the community is so rare that when it exists it is a shining mark in the darkness. "But so many great men were at one time teachers," you urge. Yes, and so many of them once had the measles. They got over the measles or they would have died; if they had not quit teaching they would never have been heard of.

Third, teaching usually belittles a man. I do not say it ought to; I do not say it always does; I say it usually does. His daily dealing is with petty things, of interest only to his children and a few women assistants, and under regulations laid down by outside authority, so that large questions seldom come to him for consideration. His environment narrows him, he grows to have only one interest, and that limits him in public and in social life. You can not usually get it out of the heads of the kind of men who go into teaching that they are dealing with inferior minds. The child can not answer back, the teacher has the last word, ergo the teacher is correct. Of course the real teacher is a listener; he learns more from his children than they from him, because it is an ever new delight to watch the impression of ideas upon the budding mind. But how many men teachers are there of your acquaintance who listen? How many of them delight in a childish mind quick enough to catch them in a blunder? How many of them say when the child fails to comprehend, "How stupid my teaching must be"? It is the assumption that the teacher knows it all and the child nothing that belittles. The teacher who has browbeaten his school is at a loss when he comes out of the school into the community, which can answer back, and is by no means disposed to accept his *ipse dixit*. He takes himself too seriously to enter social life on even terms, relying not on the prestige of his position but on his personality, and so he looks upon its pleasures as wasteful of time and beneath his dignity. An agency that puts among the questions on its reference blanks this inquiry, "Is he social in his habits and at ease in company?" got this answer: "In

small companies, yes; in large companies he speaks when he is spoken to."

This suggests the fourth and last reason I shall give, that teaching tends to bad manners, and bright young men who see this hesitate to be classed with teachers. Some years ago there was a vacancy in the science department of the Syracuse high school. Among those who appeared before the committee was a man from Buffalo. He replied to the questions put to him and then he asked three or four. When they were answered he said: "Gentlemen, I withdraw my application. I thank you for considering me, but the place has not advantages enough over my present one to warrant me in changing. Good-day." And he was gone, in less time than it had taken most of the candidates to introduce themselves. When the door closed upon him the committee looked at one another, and the superintendent said: "I tell you what I think, gentlemen, when we come to choose a principal for our commercial high school, that's our man." And to that place he was elected, altho he had given no special attention to business branches.

Now what must be the general condition of teachers' manners when it is such a distinction as this to have the appearance and bearing of a gentleman, and the decision and directness of a business man? A normal and university graduate of considerable experience was a candidate for a place in the Albany normal, and was pretty sure of it up to the point when he called upon the state superintendent. This officer was at his desk, and the candidate, when he came in, seated himself familiarly on the side of it. That cost him his appointment, and it ought to. As a rule men teachers are uncouth, crude, ill at ease in company. They do not know how to enter a drawing-room or a business office, or how or when to get out of either. It is amazing what a difference it makes in a teacher's presence if he goes into business for a time and learns how to meet people.

Men principals are often petty tyrants; they accept and demand obedience to the point of servility. How often you see a principal and his assistants coming in a body to an asso-

ciation, the women cluttering about him and he strutting majestically like cock and hens in a barnyard. I could name a man, a fine man and teacher at that, who has yielded to this influence so much that he never listens to a remark when it is first made, but expects it to be repeated. The original remark is simply an indication to him that somebody has said something. This elicits "Huh?" which is his signal that he is now ready to listen. He has so long been surrounded by adoring assistants who will submit to this that he forgets himself and tries it on people outside, so that his companions often refrain from speaking because they are likely to have to speak twice. Somebody says it is difficult to be a bishop and be humble. It is difficult for a principal to be surrounded by people ready to be obsequious and not let them become so. "It is not so with me," you who read this say. Certainly not; but you have noticed the effect on the other fellows, haven't you? A superintendent of schools in one of the large cities was walking from one building to another with some of his teachers. It was an oppressively hot day in June and they were in the glare. Finally one of the ladies suggested: "Dr. —, don't you think it would be better to walk on the shady side?" "Oh, no," he replied imperturbably, "I don't mind the sun!" He was a really great man, to whom American education owes not a little, but he got his manners in the schoolroom.

In all this I speak as one having experience and not as the reporters. I have been a teacher, as tutor and in private and high and normal schools and as superintendent. All the work I have done, all the money I have earned, has been in connection with teaching. I have known ten thousand men teachers to call them by name. My best friends have been and are men teachers. I am not looking for finer fellows and nobler men than some of these have proved. But they are fine fellows in spite of their occupation, not because of it; most of them, if they were starting over again, would listen for some other calling. They will all admit, I am confident, the accuracy of this diagnosis, and they will feel, as I do, that those who would uplift teaching as an occupation for men consider the obstacles I have named.

In the forty years since I began teaching there has been improvement. Superintendents who are the executive officers of their boards are brought into business contact with the world, and show it. Principals of large schools exercise many of the functions of superintendents, with like result. Indeed, the kind of men chosen for these places are those who are least subject to the defects I have named. But the rank and file of men teachers are still seriously deficient; young men see this and are repelled. A discussion of these topics might prove at teachers' associations an interesting variant from the customary, "Why teachers are underpaid," and "How to compel the public to recognize teaching as among the learned professions."

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IV

THE HIGH SCHOOL'S CURE OF SOULS

The ancient state at least in theory cared for the ethical development of its youth; the early church assumed and magnified this function at the beginning of the Christian Era, and thanks to its universal presence and sway, could touch in some degree all the people. The separation of church and state, and the loss of catholicity in the external church have brought about the present conditions respecting religious and moral training: the church is no longer adequate for the task, and the state has not yet fully got its shoulders under the burden. This paper is written in the firm belief that the state, and especially its chief educational agent, the school, must and will assume complete responsibility for the development of moral character in all its youth; the trend in this direction is already well developed and unmistakable.

The school, as contrasted with the home, the calling, the church, and some other educational agencies, wields its greatest force *thru* the intellectual processes; not merely *upon* these processes, but *thru* them upon the whole being; the home has far greater direct power over both emotion and will, as has probably the calling; the peculiar function of the school with respect to the formation of character lies in the *enlightenment and enfranchisement of the will thru reason*; in other words, in creating a body of knowledge and a power of intellect which shall stimulate and illuminate a righteous will.

Probably a child's moral possibilities may be blasted before he is fourteen years old; certainly, on the other hand, much may be done before that age in laying the foundation for a complete moral character, in the form of physical and mental habits; but genuine moral character, autonomy of the will, the power of intelligent self-direction, does not and can not form before this age, but must in the main be developed later. A

period varying somewhat with the individual, but in general not far from the age of high school attendance, is marked by the transition from the stage of imitation and obedience to that of volitional intelligence and self-direction; there is reason to believe that the high school period is even more critical and determinative than that of the college; the fact that more religious conversions occur in the high school period than in any other can not be without significance with respect to moral development.

The two principles set forth briefly in the foregoing paragraphs lead to the proposition that the years from fourteen to eighteen offer to the school its supreme opportunity for character building; the high school, of all grades of school education, should take the most active and effective part in the formation of character.

All this becomes far more striking when we remember that out of the high school come practically all our *leaders* of every kind, social, moral, religious, political, and intellectual; thru a single high school boy the opportunity may be given to determine the conduct and destiny of a dozen, a score, a thousand, of those who do not enjoy the privilege of any part of a liberal education, thru the leadership which that boy may exercise in his mature life.

What do we find to be the actual condition in our high schools in this respect? The teacher, here as elsewhere in our schools, is of unimpeachable character; it is foolish to doubt or deny the good moral influence of the school. With the cry of godlessness against the schools, now fortunately falling into discredit, no one who knows the schools has a moment's sympathy. The high school, like the elementary school, certainly exerts a beneficent influence upon the habits and character of its pupils. But this influence is almost entirely confined, as its admirers admit or even assert, to the operation of the personality of the teacher and the work and order of the school,—in other words, to the kind of influence and the kind of training in which the home, the calling, and social life peculiarly excel. The peculiar duty of the school, which can not be fulfilled by any other agency, is,

as we have seen, other than this, namely the creation of ethical enlightenment and of a rational will. And in this respect the high school falls utterly short of its ideal; *upon* the intellect the school does assuredly work (tho not always with the best results even upon the intellectual side), but *thru* the intellect *upon* the will the school works but very little.

Let us take a conspicuous example: Plato discusses at length the study of literature in the school; what is his chief theme? The working of the literature upon character! His criterion of selection for school literature is the question: "What kind of character will the work in question produce?" Ruthlessly he rejects every mythus, however honored by immemorial tradition, which might imperil the moral ideals of the youth. Does this story inculcate false ideas of the gods? Cast it out! Does this set forth a false conception of courage? It is unfit for the school. Homer and Hesiod, the very Bible of the Greeks, are subjected without reserve to the test of moral influence, and large parts are condemned and eliminated. What of the teaching of literature in the modern high school? Is moral influence the chief consideration, or a prominent element in our discussions? Turn to the Bible of the secondary school, the Report of the Committee of Ten; one finds much about linguistics and nothing about the play of literature upon the soul, upon the moral nature. Plato's mythus was history as well as literature; how does history fare in the Report? The conference expresses itself in no less than thirty-five resolutions, but we find no syllable declaring that the study of history may carve ineffaceable impressions of honor and courage, of humanity and civic righteousness, of devotion and noble life, upon the heart of the youth. No mention of all this in the formal resolutions: a search thru the thirty-six pages of discussion reveals a few incidental, one might almost say accidental, remarks, confined apparently to two pages (169-170), which imply the ethical value of the subject, and these are nearly all *quoted*. This is only the more astonishing when we consider that the history conference dealt also with civil government and political economy—that is, with the whole body of the social sciences; if the ethical thought

of our day reveals any one fact above all others, it is that human character rests upon social relations, and that social intelligence is an indispensable part of the kind of character demanded by modern democratic life.

In the report of a conference of high school teachers, held at one of the largest state universities, the following are pronounced to be the purposes of secondary instruction in English literature:

"The purpose of secondary instruction in English literature is as follows: First, to enable the student to write and speak with clearness, vigor, and grace; second, to acquaint him at first hand with a few of the best literary products of English and American thought; third, to cultivate a sense of literary style; fourth, to inculcate a love of the best literature. Under the first head is included the development of the power to read aloud with sufficient skill to afford pleasure to the hearer." In a resolution on "The preparation of the teacher," no mention is made of ethical character or appreciation.

An examination of the proceedings of important gatherings for discussing the problems of the secondary school will show in general that these meetings are but little interested in ethical training; the question has been forced upon them in two or three ways, particularly in connection with the problems of discipline and order and the peculiarly modern questions of athletics and fraternities; aside from this enforced discussion of moral culture, little is said about it. Above all, there is no adequate recognition of the positive and distinctive function of the high school which we have endeavored to point out. How pathetically weak has been the position of high school and college authorities in many cases regarding the ethics of athletics and athletic contests, comes to light on not a few occasions; all honor to those who have stood unwaveringly for truth and honor at all times, let the price be what it might; they have rendered a great and notable service to moral culture in the secondary school.

The fact is that the secondary school teacher is too much absorbed in the intellectual aspect of his particular subject; it is this aspect which he has learned to know and respect in

the university; the plan of the school, the form of the curriculum, the examinations, the college entrance requirements, all tend in the same direction, until the very idea of ethical education is strange and uncongenial to the high school teacher. Nor can the over-intellectualism of the university graduate be a surprize to any one who realizes the vast transformation from the older type of American college, with its deep ethical and religious character, to the university of today with its intense specialized teaching and study on the one hand, and its absorbing athletic and social life on the other—a transformation pictured with power and fidelity by Mr. Clarence F. Birdseye in his really great book, *Individual training in our colleges*.

What the American high school needs is just what English Rugby needed and what the immortal Arnold gave it thru his teaching and example, and as Hughes says, "above all thru his unwearied zeal in creating 'moral thoughtfulness' in every boy with whom he came into personal contact."¹ Woe unto the land if its future leaders lack moral thoughtfulness in its fullest sense: both the righteous intent and the practical wisdom; only by these two elements combined in our statesmen and citizens can the republic be saved and the nation fulfil its destiny.

Youth—the high school age—offers two golden opportunities for character formation: the sense of personal honor and the growing realization of social relations; upon these two, education may build broad and high. President Hall has abundantly set forth the intense power of the feeling of honor; it is for the school to mold that sense and enlist it on the side of righteousness—for who does not see that it fights on all sides of almost every question? It went sadly to waste in the Spartan lad with his stolen fox under his tunic; but he at least had the moral support of his own social system; how much worse is the waste when a high school pupil knows no higher object of devotion than success in a ball game at any cost, or the acquisition of "souvenirs" filched from

¹ Preface to *Tom Brown's schooldays*.

friends or foes? Where is the sense of honor estrayed to when school and college youth will cheat and connive at cheating their athletic opponents by playing one of their number under a false name, or other such dishonorable and unsportsmanlike tricks? Is it any wonder that thousands of grown men resent the name liar with a blow, but daily with unruffled soul lie and cheat by word and act? It would be utter injustice to lay the whole blame or even the chief blame for this low sense of honor upon the high school pupils or even the college students; the elders, teachers, parents, the general public, can not wash their hands of guilt; the very same lads who led in the unworthy trickery would with right and strong guidance have repudiated it with scorn, as is proven by the moral tone of many a high school and perhaps some colleges.

It is trite to say that the youth takes his criteria of honor from the company he keeps, and chiefly from his elders; so far as the school is concerned in its present form there is probably no place in which the sense of honor is so much affected as the athletic field, including the bleachers on the one hand and the rubbing-rooms on the other, and adding of course the endless talking-over to which every game and every incident are subjected. Now in England the whole body of both teachers and students engage in athletics; in America the majority of the teachers have little interest in athletics, little time to devote to them, and small influence upon athletic ideals and standards; the result is that the standards of the coach and trainer are dominant, and those standards are generally low and partial; to this is partly due the furious and devastating force of the passion to win, the most threatening element in the whole athletic situation. It should be quite clear that the blame for all this does *not* rest at the door of the athletic trainer—he does just what we might fairly expect him to do; we should all do much the same if we were in his place; the real fault is one of omission on the part of the rest of the teachers. Strictly speaking, the danger is not the great desire to win, which is an indispensable part of sport, but rather the defect of those higher ethical and chivalric ideals which should be supplied by the teachers whose minds are not strained by the

peculiar situation in which the coach finds himself. Whatever is being done to ventilate the conduct of athletics and bring it all under the cognizance and control of the whole body of the school helps to cure this evil.

Whatever is true of athletic contests is true, with slight modifications, of other interscholastic affairs — mainly, of course, those in oratory and debate; only it is easier here to get the right ideals into the place of power.

Here let stress be laid incidentally upon one of the most crying perils of our higher education, the usurpation by interscholastic contests, chiefly athletic, of a place and prominence utterly beyond their merits. Not athletics, be it noted, but inter-school contests: *true athletics and physical culture are yet far from having place and regard enough*; and the exorbitant demands of the contests consume the interest and effort that ought to be devoted to real athletic work among the general body of the students. It would be absurd to censure the *student* for his intense and eager interest in contests: that is but the inevitable result of a healthy and vigorous nature in youth; the blame lies with the elders, both teachers and parents, who instead of wisely using and moderating the impulses of youth, weakly yield to them, or even act so as to add fuel to the flames. Both college and school papers and the daily press announce the opening of the fall session by cartoons of the football "hero" in full armor; all of which may be meant as jest, but is the expression of a most serious fact. "University ideals," at least so far as student opinion goes, are no longer of thought or scholarship, to say nothing of character and leadership, but of the gridiron and the diamond—or rather of the winning of victories thereon.

The positive fruit of the education of the sense of honor should be a lofty, well-formed, *personal ideal*, embracing body, intellect, and principles of conduct. A modified form of the athlete's standard of physical habit and efficiency should be cultivated in every boy and girl: to be straight and sturdy, well-muscled, quick and sure in movement, and not easily "winded"; to have a good appetite, in quantity and also in discrimination, but to have it under the command of the will;

these should be dear to the heart of youth, and nature has planted vigorous germs of all of them in every normal child. To know what one knows and be fully aware when one does not know, to see clearly with the eye of the mind as well as with that of the body, to hate obscurity, confusion, ambiguities, evasions, and to worship the crystal light of true perception and right reason,—these too belong to the personal ideal of the educated man. It need hardly be said that stimulus and nourishment of these two ideals, the bodily and the intellectual, ought to be the largest, as it is the highest service of the study of the classics,—but mere linguistic study has no power to these ends. The third element in the personal ideal is that of the self-determining righteous will: here above all places *honor* is the word to conjure with. There is that in the soul of every youth that resonates to the fiery answer of the old Hebrew, "Is thy servant a dog that he should do this thing?" The 'hate of hates and scorn of scorns,' and the abhorrence of all things mean and low can never before or after be so quickly fanned into flame and strengthened into a steady light and warmth for life. These, then, are hints of the elements indispensable to rounded humanity and therefore belonging to the ideal by which every man should measure himself.

So much for the sense of honor and its possible fruits: we turn now to the new perception that the youth has of his place as a member of a social community.

The *sense* of social relationships is largely bred by the same converse and association that breed the sense of honor; but there is a rational and clear *comprehension* of social relationships which arises only from long-continued and progressive thinking; this we may call *social intelligence*. Such social intelligence is indispensable to moral character, and especially to *leadership*, hence its culture is a peculiar duty of the high school. There is no morality worth speaking of nor worth cultivating which is not social; mere self-interest is not really to the interest of self, to say nothing of its worthlessness to the body social; it is still true that he who sets out to save his life—for himself—shall lose it. The youth who goes out from the high school without a deep and ruling sense of the

intimate bond between his conduct and destiny and those of his fellows, has been cheated of his birthright as an educated man. Plato voiced the great law of higher education when he declared that the men who had escaped from chains and the cave and had beheld the truth of things, must go back and rescue those still in bonds and ignorance. The high school boy and girl can understand what is obscure to the child in the eighth grade,—that we are bound each to each—father to child, brother to sister, friend to friend, and man to man; that my conduct and destiny affect your conduct and destiny and yours mine. Moreover, this priceless truth which yesterday was concealed by childish immaturity, will tomorrow too often, alas! be obscured by what we call disillusion, which is really illusion and blindness of heart. The message that no man lives unto himself brings a new light and may bring a new resolve into the eyes of early youth; from the same message the riper youth or the grown man too often turns, as from the dream of an enthusiast.

The curriculum of the high school² must be still further vitalized and humanized; far more attention must be paid to the presentation of life in history and literature: this does not mean merely more hours per week devoted to these subjects, but, in addition and more important, that the vital ethical element in them be given its due place. Literature is far too much linguistics and verbalism; who does not know how the literature of power is daily robbed of all its force and reality for the student by being turned into dead matter for mental gymnastics? *Wilhelm Tell*, as an exercise ground for rules of grammar and syntax, is the type of our literature work in foreign languages; hopes and fears, courage and cowardice, tyranny and patriotism, agony and death itself, are all drowned under a play of philological practise. Over against all this place the Greek boy with his Homer, his soul aglow with the throbbing life of the story, seeing as in a clear mirror the actual warm life, the glow of anger, the smoldering fire

² On all this see G. Stanley Hall's expert and powerful, if possibly in part extreme, criticisms, in his chapter on "Intellectual development and education" in his *Adolescence*, or the abridgment thereof, *Youth*.

of resentment, the play of conduct and destiny—always a picture of the life of man and a revelation of moral laws which rule over character and destiny.

The same is true of history: we mean no disrespect to scholarship when we say that it is far more important for the American youth to thrill with instinctive admiration or reprobation of deeds fair or base than it is for him to know exactly what all the authorities say upon a mooted point. Unless the lives and characters of Washington and Lincoln and Arnold move the feelings and modify the will of the student, the teaching has been fatally incomplete; unless the vision of his country's ascent and glory make the student another sort of man in his social and political relations, he has not gained from history its true gift.

What is needed is that *ethical revelation of the world*³ which the great Herbart pronounced the supreme task of education. We can not but feel that his followers have too often forgotten the end in the means: they have been true to their leader in emphasizing the importance of instruction, but have not always remembered that instruction deserves its high place only in so far as it is *educative* (*erziehender Unterricht*), that is, in so far as it breeds moral character.

That the world is not ethically revealed to us is plain from our attitude toward many of its phenomena: most of us laugh at a drunken man; yet no one to whom the spectacle is ethically revealed could laugh, for he sees in the reeling, grotesque figure all the shame and agony which are in and back of it; the debased humanity, perhaps the ruined life of wife and children. We should not cry war on such slight provocation if war had been ethically revealed by our study of history; to know that the battle of Gettysburg was fought on a certain day, with certain losses on Union and Confederate sides and the victory on the side of the Federals, can not conceivably affect the feelings nor move the will; let every student read Lincoln's exquisite letter to the Mrs. Bixley who had lost five

³ It seems fair to render thus Herbart's phrase "*ästhetische Darstellung*," in view of his identifying the ethical judgment with the esthetic, and of his emphatic insistence elsewhere that character is the only conceivable aim of education.

sons in the war. (I have just consulted a dictionary of United States history, compiled by an eminent authority, but altho we find Binneys and Birneys and Bissells, this woman, to whom Lincoln himself wrote a letter of deepest reverence, has not even a line.) Let the youth also get some sense of Lincoln's own agony of soul as he saw himself compelled by his sworn duty to send more and more of the sons and fathers of northern homes to perish on southern battle-fields. Let every lad get some insight into the privation, suffering, fearful drain of blood and treasure that war involves.

It is true, of course, that the pomp and circumstance of war, and still more its heroisms and its possible justice, belong to its ethical presentation as well as do the tragedy and human agony; the glory and the heroism, however, are as a rule sufficiently impress on youth outside of the school, and being only one side of the truth, and having a powerful hold upon emotions and will, render it all the more imperative that the other side should be revealed by the school as the agency which labors to give a balanced and rational conception of all things.

It may be allowable to mention here three *ethical ideas* or principles which seem to the writer of paramount importance to the proper development of moral intelligence in the mind of the youth. The first is the truth that man is essentially *social*, that he is man only as he is social, and that hence, in Scripture phrase, no man liveth unto himself, but that the conduct, character, and destiny of each of us affect others, tending to make them better or worse, happier or less happy. Concerning this let us note first that it is a fact, not a theory nor an ethical precept; it has always impress great minds, both the intellectual, as in the case of Aristotle, who defined man as the social being, and the ethical souls, who have all perceived that this truth lies at the root of the ethical as such. It need hardly be added that a clear perception of the fact, vitally revealed in pictures of actual life, leads naturally to the sense of social responsibility.

The child has no innate idea of this truth; he grows up with his wants constantly satisfied and so without any deep im-

pression of his own dependence upon father and mother; of their solicitude for him, and of the extent to which their happiness is bound up in his character and happiness, he has no proper conception; unless, of course, all this has been revealed to his growing intelligence by careful instruction from day to day and year to year. Every high school principal has known boys who were set upon leaving school, altho their parents ardently desired them to continue; in many cases the boy simply has not got any glimpse of the bearing of his conduct upon the joy or sorrow of his parents. Still less does the average youth perceive that his conduct and welfare touch and modify lives all about him, first near, then, in less degree no doubt, lives remote from him in both space and time, including the unborn who are later to inherit from him either individually or socially.

Those who have dealt with boys must have been impressed with the fact that a boy often seems strangely indifferent to warnings relating to his own future welfare: he seems to feel that he has a right to hazard his own fate at his own discretion. The same boy can often be touched and moved instantly by the fact that his undesirable conduct grieves and saddens his parents, impoverishes their lives, and darkens their declining days. The lad is more right than wrong: if his conduct affected only his own fate, who shall say that he might not then do whatever seemed right in his own eyes? The true ground of his duty is the social bond that makes his welfare one with that of those who love him.

The second ethical idea to be impressed upon the youth is the truth touching his own relation to society: he ought to be shown his *indebtedness* to the community for nurture and culture, physical and spiritual. This idea can be grasped in its simpler form in early years: that is, the child can see clearly how much he owes to his parents and near friends; but this is far from sufficient for full social morality. The high school age brings the larger view of society in its economic and spiritual aspects which enables the mind to grasp the fact that each

individual is indebted not only to parents, but also and far more deeply and essentially to generations past away, and to leaders and heroes and progressive and devoted spirits on every hand. The youth is not furnished for moral intelligence until he understands that human progress and the high social state to which he is born are possible only because many men are willing to give more than they receive, to serve greatly and be served little, to sacrifice private and personal ease and gain to the good of all.

These two ideas lead naturally to the third,—that life gets its significance and worth from *service*. History and literature reveal the truth that not only the Man of Nazareth, but all whose names are most highly cherished and adored, came not to be ministered unto but to minister, and are truly admirable because they did so. Our own annals are rich in this respect, with Franklin, Washington, Lincoln, and unnumbered less illustrious but not less worthy names. This idea forms the true first principle of the relation of each of us to the common weal, and has power to transform and elevate the whole conduct of life. Note again that the child is far from possessing any original or instinctive conception of this truth: he rather inclines by nature to think that a man is great in proportion as he gets, possesses, enjoys. He needs instruction and illumination in order to perceive that service is the highest mark of greatness.

All this is impossible and to attempt it would be worse than useless, without deep moral earnestness in the teacher. The moral education of the school is accomplished largely thru the play of the teacher's righteous judgment upon the subject-matter of the curriculum. "No direct instruction," says Arnold's biographer, "could leave on the pupils' minds a livelier image of his disgust at moral evil, than the black cloud of indignation which past over his face when speaking of the crimes of Napoleon or Cæsar, and the dead pause which followed, as if the acts had just been committed in his very presence."⁴ In fact, while there are valuable specific means

⁴ *Stanley's Life of Arnold*, p. 142.

and instruments for moral education in the school, such as we have mentioned, history, literature, and the social sciences, yet the teacher is always the indispensable *agent*, without whom all these are but idle instruments. Let the high school teachers become once possessed with a sense of their opportunity and their responsibility, and ways will not be wanting. But the great theme of the person and opportunity of the high school teacher, and especially the tragic need of more *men* in our American high schools, is no topic for an addendum to this paper; fortunately the import of the subject is dawning upon the minds of educators and the more intelligent public.

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V

THE TRAINING OF THE TEACHER

The education of our youth ever has been and will ever increasingly be the subject of deepest concern. From the time of Socrates and Plato, philosophers, statesmen, and theologians have given their attention to it, and since the "Revival of learning" and the recognition of the personal accountability of each individual to both secular and moral government, it has become more and more the theme of the masses.

In our own country the educational activity is most impressive. Philanthropic people are giving immediately or by bequest enormous sums, approaching \$100,000,000 each year, for the foundation and maintenance of institutions of learning of one form or another. The churches are maintaining thousands of schools and many others are supported by private fees. But far more than all is the public support given to education by nation and state. In per capita expenditures we now lead the world. The writer's own state, numbering some 1,800,000 inhabitants, is appropriating directly about \$13,000,000 annually, and when there is added to this the private maintenance of the pupils, estimated at the very low average of \$3 per week, the total yearly cost of education to our people will approach \$100,000,000. This state does not differ largely in proportion from most of the states of the Union.

One can not witness a commencement season, with its festive occasions, its gaily clad throngs, its garlands and baskets of flowers, and its rich gifts, without the feeling that verily the land is given to education.

Where there is so much expenditure of money and energy, there must be logically the greatest care in directing lest there be great waste. The directive forces in public education take the form of what is termed our public school system. It is to

one element of this system, the training of the teacher, that this article is devoted.

The validity of a contract depends upon four essentials: competent parties, agreement or assent, consideration, and legal subject-matter. Let any one of these elements be absent or in doubt and the contract is void or weak.

So the strength of any school system depends chiefly upon four elements: its districting, its mode of raising money, its supervision, and the qualifying of its teachers. Let any one of these features be weak and the whole system is weak.

It is difficult to decide upon the relative importance of these essentials, but the weight of opinion will probably place first the qualifying of the teacher. The popularity of the cant expressions, "A good teacher, a good school," "Like teacher, like pupil," "Mark Hopkins on one end of a log, Garfield on the other, and you have a university," etc., give evidence of this fact. Regardless of relative importance, certain it is that the value of the teacher can not be overestimated.

The general idea of what the preparation of the teacher should be is very cloudy. The usual college professor holds that to know is sufficient to teach. The usual superintendent claims that a person to teach in a high school must be that somewhat undefined product—a college graduate. A certain superintendent holds that personality is the main element in the qualification of the teacher. Some hold that character is the chief requisite of the teacher, and so on, and so on *ad infinitum*.

No one could object to any one of these characteristics in itself, but will any one say in what respect they are peculiar to the teacher?

May we not clear our understanding of the qualified teacher by a few comparative definitions? Who is the best clock-smith? The one who can make at the most economical price the clock that will keep the best time. Who is the best surgeon? The one who can perform in the most skilful manner a delicate operation such as the removal of a cataract from the eye, or that tempting and friendless victim—the vermiform appendix—from the cæcum. Who is the best physician? The

one who can best diagnose the condition of the patient and best prescribe to meet his needs.

Who is the best teacher? The one who can best analyze the mental condition of the child and best meet its needs.

Surely by parallel we thus establish a definition, but unfortunately this definition does not sufficiently define.

Mental needs are not an easily determined quantity. They are affected largely by opinion, and by conditions that are constantly changing. They are veiled by the nature of the mind itself, a living, self-active force, working out much of its own power by its own activity, irrespective of the schools.

Who, short of Divine Wisdom, shall say what is right in education; what best meets the needs of the child?

Fortunately, experience comes to our aid. That beyond which the mind of man runneth not back, that which is in the practise and habit of every individual, that which manifests growth, development, and increasing appreciation as ages go on, may be said to be the nature of the race.

Thruout the long processes of time human activities have been classifying themselves into certain lines or groups so uniform and so well understood that they are given names and called subjects. These activities have not been the results of caprice, but have been the outgrowth of the demands of the very nature of the human being. To illustrate: comparison with a fixt standard of measurement for purposes of estimating and expressing values, space relations, etc., engaged Pythagoras twenty-four hundred years ago and has entered into the activities of all men till it has worked out the science of mathematics.

The men who first pitched a tent or built a hut or fashioned a dwelling-place beneath the cliffs, began the study of art and hygiene.

When the nomadic tribes wandered over the plains of Palestine and contested the right of possession with other tribes they began the study of language, geography, and history. The subjects of then are the subjects of now; the common school subjects of the first century will be the common

school subjects of the last century, to him who correctly understands and interprets the human race.

Our definition of the teacher begins to clear. To reduce it to common terms: he who recognizes the most important branches of study, that is, the branches which best express the real needs of life.

We must, however, go further than this if we are to be clear and practical. Each branch of study covers a wide range of facts and sub-topics, the outgrowth of a great variety of experiences in these branches and a great variety of adaptations due to different surroundings, different ages, and different degrees of intensity of thought on the part of the person.

These sub-topics and facts must be considered with regard to their definite relation to any one set of conditions including the person and his occupation. What conditions are common and what special? What persons are usual and what unusual? Using arithmetic as an example, what are the usual experiences of the day in this subject, and what forms and exercises will solve the problems of these experiences, and how shall we adapt these forms and experiences to the pupil at his age?

May we say, then, that the best teacher is the one who can best foresee the occupations and experiences to which his pupil is to go and whose appreciation of relative values in education is such that he can best select and adapt the exercises that will equip the pupil to meet these experiences?

After this discussion we may reduce our definition to the lowest terms: the best teacher is the one who knows what is best to be done and how best to do it.

The above line of reasoning seems so simple that one might wonder at the necessity of stating it.

On the golf-field the instructor tells you to look at the spot on your ball you should hit and strike at it. It sounds simple and easy, but, alas! the player takes his position, looks at the ball, wonders where it will go! strikes, and then wonders where it has gone. That moment of wandering attention cost him his success. So in education, we too often lose sight of the

main purpose. We are caught by the tinsel of tradition, poetic or eloquent presentation, popular clamor or applause, and lose our aim. Let us keep our eye on the ball.

The careful observer who reads the history of education, the many pedagogical books that are now coming from the press, the current educational papers, and listens to the addresses at the various educational conventions will find much to confuse him. He is often prompted to conclude that there is much more talk about education than there is education in any definite sense.

To the Athenian, education was philosophy, art, and letters; to the Spartan it was strategy and bravery. In the Renaissance period it was at one time the humanities, at another the sciences. In our own country, during recent years, at one time we heard much of the Herbartians with their "reals" and their "apperception"; at another time the concentrationists occupied the field. The Grube method is for a time the theme of the hour; then the group system receives general attention. The Speer system is made the prominent subject, then the Ward system. Manual training is uppermost for a time, then school gardening. Nature work comes in its order, then trade schools.

One eminent educator says discipline is the object of education, and would teach a classic, a science, and history. Another claims that culture is the proper aim, and measures culture by travel, the reading of many books, and a smoothness of conversation.

One speaks for the small college; another for the great university. One favors the election of subjects for study by the pupil; another would have only required courses. One favors four years of college work for the bachelor's degree; another less. One would teach religion in the schools; another would simply teach morals. One speaks on the soloist; one on enthusiasm. One favors the grade teacher; another the specialist. Some would have inter-scholastic games and sports made professional; another, games as the media of exercise.

Here are one or two definitions of education by great men:

"Education does not mean teaching people to know what they do not know; it means teaching them to behave as they do not behave."—*Ruskin*.

"If a man empties his purse into his head no man can take it away from him."—*Franklin*.

"Education is only like good culture; it changes the size but not the sort."—*Beecher*.

"The secret of education lies in respecting the pupil."—*Emerson*.

The above are all interesting subjects and definitions in themselves, and no doubt have, each of them in its turn, contributed something to educational thought; but as related to school-work, they have definite meanings only when these meanings are read into them, and when we consider the great variety of persons who must undertake the reading-in process, we can hardly feel that as educational guides they are quite safe.

The only philosophy that is a reasonably safe guide is the philosophy of the useful described in those subjects or parts of subjects which a person will, of necessity, use in doing certain specific things effectively.

Language is a necessity. It involves reading, speaking, writing, and spelling. It is conventional. It is an arbitrarily determined collection of symbols, the correct use of which is called grammar. It has certain dynamic qualities called rhetoric. Each of these phases must be learned and practised till it becomes second nature. Literature is not an essential in the same sense, it is an accomplishment. It may be used to illustrate the grammar and rhetoric, or as a medium to enrich the mind by giving thoughts on other subjects, but it is not strictly necessary.

Botany is an essential, but not all of it. The knowledge of certain plants, their nutritive or medicinal or poisonous character or structural value, is a matter of every-day use.

Zoology is an essential, but only a limited part of it. The life habits of certain animals concern our food plants, our forests, and our shade trees.

History is an essential in so far as it concerns our republi-

can institutions; our municipal, state, and national relations and functions; our systems of exchange, transportation, etc.

These illustrations are sufficient to show that there are a certain number of subjects or branches of study that have in them parts that are so essential that no human being can live in any intelligent sense without them. This kind of knowledge is called elementary or general, and must be possessed by every one.

There are other phases of the various subjects that are less general, that call for more practical study, and relate themselves naturally to specialization, and should be studied in special schools.

The one who is to exercise this selective power is the teacher. He may not know the whole of any subject, but he must have the ability to separate the general from the special, and know enough of the special to see whither it is tending. How much more he must know will always be answered in relation to his pupil. It is this selective power, this testing out of values on the part of the teacher that needs to be emphasized.

The teacher who would exercise this power and enforce it in his planning of work and organization of his class or school, will need to study more than the subjects he is to teach. He must know something of psychology, but not the *a priori* or metaphysical psychology, but rather the natural habits, activities, and laws of child-growth and interest. He will need to know something of the history of education, not the chronological order of educational events, but rather something of the different systems and methods practised in the past and their comparison with systems of the present in their industrial, scientific, and literary output.

He will need to know something of school organization, what subjects are elementary and general, what are advanced and special; the sizes of classes consistent with individual attention, the conduct of classes with reference to groups, sections, promotions, seat work, etc.; something of hygiene with reference to exercises, ventilation, length of school-hours, recitations, and so on. But all he knows should be focused on

a pupil doing a specific work with a specific, definite, practical end in view.

Our technical schools have set us our best examples in definiteness. When one visits a medical or military or law or engineering school he usually hears the discussion of a subject with relation to its definite, reliable, and practical phases. "This treatment will bring this result," "This law is founded upon this principle of justice," "The tension power of this material is not sufficient for this class of construction," etc.

It would be well if this technical-school spirit could spread more generally thruout all our schools. We would then find many of the criticisms on our school systems disappearing. We would not then hear the question, "Should the teacher be trained?" any more than the question, "Should the physician be trained?" The contrary would not be conceived. Not, how long should a boy study bookkeeping? but, what must he know in order to keep books? Not, must we have trade schools? but, what must the boy know in order to do the general mechanical things he is called upon to do in case he is to be a farmer, a carpenter, or an iron worker?

We would not then see institute instructors striving to please and amuse with funny stories, jokes, and novel devices, but rather endeavoring to instruct by scientific treatment of the subject in hand, with all its economic and educational values.

In short, definite practical ends, rather than ideals, visions, and fancies, would prompt more fully than at present all our school work. The true scientific spirit would prevail.

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VI

COLLEGE GEOGRAPHY

The author desires in this paper to maintain the following progressive thesis. From the nature of the science and also from the utility of its subject-matter, geography is suitable for the university curriculum, and, therefore, it ought to have a place in American universities.

I The nature of the science

It has been well said by an English geographer, H. R. Mill, that geography is the meeting-place of the physical and the human sciences, the focus at which the rays of natural science and those of history and economics converge to illuminate the earth in its relation to man. It is a generalization, a synthesis of units from many specialized sciences, units which, in this union, are viewed from their relations to man. Geography sets forth the relations existing between man and his physical environment, classifies and explains the influences and responses. Ritter has been called the founder of modern geography and in the matter of a definition for the science we have not gone far beyond his conception, that geography treats of the earth as the home of man. In this sentence the relative conjunction suggests that "the relation" is the key—the essential.

Herein are embraced a wide field and a wealth of material. Many facts and relations of the science are easily grasped and explained; many are quite abstruse. Much of the knowledge included is well known, but probably a larger share is yet unknown, or at least unclassified. Some of the relations are very complex, others equally simple. Of the subject-matter known, there is far too much to be learned in a common school course, were it all of a character elementary enough to be

comprehended by pupils of this age and attainment. Like other sciences, botany, zoology, and mathematics, or like the humanities, history, politics, and civics, it may well be begun in the elementary or secondary schools; and again like them, to be mastered, it must be continued into the higher institutions.

This last point is fully illustrated in the geographic study of a city. Its place relations are usually simple. It is on a river, bay, or lake, or at the intersection of crossing highways and hence engages in commerce; or it is near certain raw materials or possesses water power, and hence is a manufacturing center. But the intricate world relations of such cities as New York, London, and Singapore are much more complicated. Why is it New York and not Boston that dominates American commerce? The latter is nearer Europe. Or why New York and not Philadelphia? The latter is in a much more salubrious climate, is as near the coal and iron producing areas, and has an open water route to the sea. In order to appreciate fully New York's advantage, the student must have a good knowledge of the physiography and resources of the whole region. To excel in the export trade, Boston should not only have been nearer Europe but should have had as easy a route to the agricultural Middle West and the manufacturing Middle Atlantic states as had New York. It was in an attempt to attain this advantage that the marvelous five-mile Hoosac tunnel was made. But even then the grade was not so easy and the route not so direct as to New York. At New York, the ancient highlands, the Old Appalachians, are narrower than at any other place between Savannah and the St. Lawrence; and the easy grade up the drowned Hudson and leveled Mohawk valleys and along the old Ontario lake bottoms gave the metropolis, in her trade with the West, decided advantage over any other city. Her central position among the Atlantic states, and her easily accessible fruit and vegetable lands in New Jersey and Delaware gave her further advantage. New York's harbor was essentially perfect, being at the mouth of a drowned, deep valley, but Philadelphia's needed much and continuous attention, because the valley which had been drowned to make Delaware Bay was a shallow one in a recent

coastal plain of soft strata and not a deep one in ancient hard rocks.

A second illustration may be taken from a study of the tropics. Elementary pupils will describe the main features of a tropical climate and will name rubber, mahogany, and tropical fruits as products of the zone, and even recite that the Equatorial belt is unhealthful for men; but the geographic factors in the problem of acclimatization, and the adjustments to the climate which may be made, can not be apprehended without more than elementary preparation. Some scientific knowledge and training are required to understand the influence of altitude on climate, effects of exposure to sunshine, distribution and geographical relations of tropical diseases, sanitation, and the adjustment to foods and clothing which the tropics make necessary or furnish. A consideration of these illustrations reveals the intricacy of some geographic problems.

Not only has geography complex and intricate problems for advanced study, but there is also a vast amount of geographic truth yet to be discovered and classified. As will be shown in the following paragraphs, multitudes of opportunities for research exist within the scope of this science.

1. There are large habitable countries about which expert geographers, even now, know but little. In this list belong central Canada, central Siberia, part of the Sudan, southern Brazil, eastern Bolivia, Peru and Ecuador, much of Colombia, the Guianas and Venezuela and the Central American states. And less habitable areas comprize as many more millions of square miles of *terra incognita*: viz., parts of the Sahara and Sudan, central Africa, most of the Amazon country, central Asia, central Australia, and the two polar regions. Pioneer exploration is yet to be done.

2. Even in well-settled lands on both sides of the Atlantic new facts concerning geographic influence are continually coming to light; and no doubt many principles will yet be discovered whose presence and operation are none the less real because unknown, and whose recognition will be beneficial to man. Certainly new applications and illustrations of more or less familiar laws may be found in abundance. It was known

years ago that, if a vessel entered the Cape Horn passage from the Atlantic with a certain wind she had little difficulty in reaching the Pacific, while if she chose any other wind, the course was fraught with great difficulties. But not until there had been made extended studies of cyclones and their geographic distribution, movements, etc., was there revealed the reason for occasional safe passages and more frequent unsafe ones. The cognizance of this geographic fact and its influence have been of inestimable value to inter-oceanic commerce. Industrial and commercial history furnish frequent similar examples.

3. The paucity of our literature, a condition arising from the newness of the modern phase of geography and from the lack of university interest in it, reveals still further the need of more systematic work on the science. Two methods of treatment of geographic subjects have been followed, the topical and the regional, but neither has gone far. Ritter's *Compendium of comparative geography* is now about fifty years old and has never been really superseded, simply outgrown. Most of Reclus' *Nouvelle géographie universelle* is out of date. Stanford's *Compendium* is descriptive and statistical with too little correlation, comparison, and systematization—scientific treatment, the essence of geography. Of topical geographic studies, Freeman's *Historical geography of Europe* was perhaps the first, and there have come more recently: *Anthropogéographie*—Ratzel, *American history and its geographic conditions*—Semple, *Geographic influence in American history*—Brigham, *Geography of disease*—Clemow, *Military geography*—Maguire, *History of ancient geography*—Tozer, *Zoogeography*—Beddard, etc. Scores of other topics should be treated from this relationship or influence viewpoint.

Of regional studies embracing an exhaustive treatment several excellent works have appeared. *Vereinigten Staaten*—Ratzel, *The nearer east*—Hogarth, *Central Europe*—Partsch, *Britain and the British seas*—Mackinder, and *North America*—Russell, and a few others of the same class may be mentioned. A glance at the list shows that many regions have not yet received treatment, and that some of these are so

large that an *exhaustive* one-volume book is an impossibility. Other regional studies are in preparation but the field is yet virgin soil.

Multitudes of excellent papers have been read before the scores of geographical societies and published in the geographical periodicals, but these are scattered, and often one-sided. Their materials should be collected, sifted, collated, and where necessary, sufficiently supplemented by further studies, then published in moderate-sized volumes of regional geography.

4. While the number and variety of maps are constantly increasing and the quality continues to improve, map-making has not reached as high a place as it will in the future; and its work has not gone out to all the ends of the earth. Areas covered by accurate large-scale physical maps are India, Great Britain, France, Germany, Holland, Belgium, Denmark, Switzerland, Italy, southern Russia, Portugal, together with considerable portions of Scandinavia, Austria-Hungary, Spain, the United States, and Canada, most of the coasts of the continents and continental islands, and small patches in Egypt, Java, Japan, Alaska, etc.; in the aggregate, a little more than half of Europe, one-tenth of North America, and about the same of Asia. Thrice as much territory has been fairly well mapped; but more than half of Africa and Australia are only roughly mapped on small scales or are yet unmapped; and large areas in northern and central Asia, northern North America, and central South America are in the same condition. Both explorer and cartographer have plenty of room to exercise themselves yet before we shall have an accurate map of the world.

There is a movement, backed by several governments, which is now six or eight years old, to produce a world map on single sheets with a uniform scale of 1:1,000,000, or about fifteen and three-fourths miles per inch. The following maps have come out,—twenty-two German and nearly forty French sheets in east China; fifteen to twenty French maps in Europe, a dozen in the West Indies, and others in northern Africa, Baluchistan, and Persia, and about fifty in Africa by Great

Britain. A total area of less than one-fourth of the land is now thus mapped. A compiled map on a scale of 1:1,000,000 is a great advance over what we have formerly been obliged to use, sketch maps, itineraries, etc., but it leaves much more to be desired. English, French, Swiss, and United States topographic maps are on scales of 1:20,000, 1:40,000, 1:60,000, 1:80,000, and on up to 1:250,000, or from one-third mile to the inch, to about four miles to the inch.

5. A confirmation of the need of further study of geographic, physiographic, and climatic conditions is found in the failures or partial successes in business, industry, and commerce, because the *entrepreneur* did not know or did not consider the geographic conditions, opportunities, or limitations.

An effective illustration of the lack of geographic knowledge is also presented when military or naval officers, boundary commissioners or legislators make errors because they are unfamiliar with the region concerned and can not get desired data owing to inaccuracy or incompleteness of maps and information.

6. Some American scientific bureaus, among which may be mentioned the United States Geologic Survey and the Census, recognize the research possibilities in geographic directions and maintain in their corps, chief geographers and assistants. In fact, most of the geographic research now being done in the United States is in the hands of army and navy officers, colonial and diplomatic services, and the various Surveys. Very few geographers are connected with universities and still fewer carry on geographic research because of that connection, but rather, in spite of it. In German universities, geographers and geographic research both find place. In American universities, other sciences are blest with this felicitous condition; their place is established, courses are taught, and research is expected and encouraged, but geography has been given little place.

7. A last testimony concerning the research opportunities in a given province should come from a specialist in the field. None is better able to answer than he who has gone farthest

into the subject. I find the following in a paper now about seven years old and published in the *International geography*. "After the blanks in the physical map have been filled the geographer will only then be able to begin his real work. Having secured geological, biological, and anthropological surveys of equal quality the data will be complete for perfecting the theory which explains the relation of man to his terrestrial home." Other geographers speak in a similar strain. Our federal and state geologic and natural history and other surveys are gathering the basal data along these lines. The Census gathers vital and industrial, agricultural and commercial statistics; the department of Commerce and Labor, railroad commissions, the Weather Bureau, Boards of Trade, Reclamation service, and other organizations are each collecting data concerned with their direct interests. This wealth of information mapped or plotted furnishes the lumber and other materials with which the geographer builds. It has ever been true that he has had to spend much of his time in the preliminary work of collecting and classifying his information, but now these various organizations are well under way and he can possibly turn his attention to a comparative study of the relations of the physical to the human elements. His descriptions, region by region or topic by topic, when prepared, will constitute the best geography ever written.

Summary—To gather together the argument thus far, we may say that the science of geography deals with descriptive matter both of physical features and conditions, and of human distributions and occupations, but it is specially concerned with the simple and complex relations of these physical and human elements. Geography like other sciences is young and growing, as is shown by the incompleteness of our knowledge concerning many portions of the earth and concerning the interrelations of man and his physical environment. Its youth is further shown by the state of its literature and the incompleteness of the map. It offers, at present, rather exceptional opportunities for its own enlargement. The need of research in geography is clearly recognized by scientific and technical organizations and is witnessed to by leading geographers.

From the standpoint then of the nature of the science, geography merits a place in the university, where the dominant spirit is the encouragement of advanced study and investigation.

II The utility of its subject-matter

With as clear a conception as possible of the nature and scope of the science of geography in mind, let us examine into the utility of its subject-matter. This portion of the paper naturally breaks into two parts: University work now offered which could be strengthened or supplemented by courses in geography; practical uses to which geography may be put outside of, and beyond, its contributions (for the college student) to other subjects.

A. Under the first subdivision is given a list of titles of courses selected from the catalogs of several leading American universities and grouped as follows:

History group—American history, European history, ancient history, colonial history, history of the East, history of exploration and discovery, historical geography.

Political group—International politics, colonial administration, the Oriental problem.

Anthropology group—Archeology, ethnology, anthropology, sociology.

Commerce and economics group—History of commerce, commercial geography, materials of commerce, transportation and communication, industrial or economic history, race and immigration questions, history of commercial relations of the United States.

Biologic group—Ecology of animals, ecology of plants or plant geography, forestry.

Agricultural group—Soils, soils of the United States, comparative agriculture, history of agriculture.

Geographic group—Physiography, meteorology, climatology, cartography.

The physical features, climate, mineral and agricultural resources, furnish one motive in all history; the topography, distribution of land and water, of plain and mountain, of valley and barrier have been another; and the approachableness,

proximity, or isolation of nations, a third. While in most of ancient and medieval history, nations have concerned themselves with defense and military aggression, in the future, they will be interested with the things that make for peace and mutual advancement. Hence, physical barriers, military routes, natural sources of wealth, etc., have formerly played a very important rôle; and now climatic and resource diversity, trade routes, and facilities for communication and exchange of products are also to be important factors in the history of peoples. American, European, ancient and Oriental history are each intimately related to their respective lands; in fact, have been unfolded in specific localities under the influence of specific physical conditions. Colonial history and the colony's relation to the homeland are of course related to policy; but policy, if wisely framed, will take into account the physical conditions in the two lands and adjust matters so that each may supplement the other.

The Oriental problem grows out of a chronic and aggravated case of geographic isolation, and a removal of the isolation is already helping to solve the problem.

The anthropologic group has to do with the distribution, habits and customs, culture, characteristics, and social and political condition of peoples—elements which depend in considerable measure upon the physical environment of each people, and perhaps more especially upon their geographic possibilities for contact and communication with their neighbors.

The history of commerce is the story of the communication and interchange of commodities between peoples of diverse resources. It is a record of adjustments to conditions, responses to environment, readjustments subsequent to discovery of new routes, new markets, or new producers. Commercial geography is an account of the influence of the various physical factors upon trade and production as well as a statement of the quantities and values of products and their destination. Race and immigration questions have to do with the sources and destination of our immigrants, but that is not all. The character of the immigrant, that of his former home and of his usefulness here is in large part geographic.

He comes because of overcrowding or insufficient opportunity in his home. Or he comes because the physical opportunities here are so great. He goes to some specific region to develop what is there, or he begins in a large plant already measurably adjusted to conditions. He finds work because we, as a people, have such possibilities for development. He dwells where climate, topography, or natural resources are similar to those from which he came.

It takes no profound scholar to see that ecologic botany and zoölogy require a knowledge of physical geography and climatology. And the adjustments of plants and animals to the physical conditions of their habitat constitute a most fascinating group of geographic responses, many of which are of vital importance to man. The geography of any region would thus be a contribution to its ecologic botany and zoölogy, while the latter subjects would, like many others, assist geography.

Soils are a part of the physical environment to which geographic responses are made; hence, a good understanding of the geography of the United States will go a long way in interpreting the soils. In complementary manner a thoro knowledge of the soils of a region is good basal material for the geography of the region. An appreciation of the geography of the various agricultural regions of the world would be an excellent basis for a study of comparative agriculture; and would often be an illuminant of the history of agriculture.

The geographic group will be discust and correlated in a subsequent section of this paper.

In summarizing this first part of the section, reference to a statement in the opening paragraph will be sufficient. Geography is the meeting-place of the physical and the human sciences. Their circles meet or overlap in this science, and each, contributing to geography, draws from it fundamental material for further work in its own line.

B. In the second part of this section I desire to point out a few ways in which a more or less thoro geographic training may be of value to the college graduate in his various lines of activity after leaving college.

1. Many of those who become teachers in the high schools will have use for geographic information. Commercial courses seem to have come to stay; geography is now an essential part of such courses, and there are few places for the teacher to get his training in the subject. The teacher of physiography and of history should also have had geography, because it would materially broaden his view and strengthen his work in his own specialty.

2. Normal schools must all teach geography. Many of their teachers of geography have had no training in the subject since they left the grades. For Latin, botany, physics, or reading the normal school now requires a person rather carefully trained in the field which he is employed to cultivate. To fill the normal school chair in geography, at present a student of geology, of history, of economics, or a city superintendent makes good material. Is it any wonder that this science is in ill repute, or is poorly taught in the elementary schools, if teachers can get preparation only in schools so manned?

3. Supervisors, and especially those directing the teaching of geography, need enough training in the subject to get the spirit of the science even if they can not spend time to get much of the subject-matter; but a thoro grounding in the subject is the only safe preparation. A larger percentage of these three classes of educators—high school teachers, normal school teachers, and supervisors—is annually being drawn from the ranks of our university graduates, and it should be so. Should not the university strive to meet the demand?

4. An appreciable number of college graduates become grade teachers. These certainly should get, while in college, not only the spirit and subject-matter of nature study, history, English, and mathematics, but of geography as well. There are ten or twelve million pupils in our public schools and about a half a million men and women teaching them. But there is almost no provision made, even yet, for the training of these teachers in geography above the schools in which they have to teach. What would we say to such preparation to teach Latin, Greek, history, or biology?

5. Politics, the commercial agencies, and the diplomatic service would be more efficient if the men entering them were better versed in the geography of the various parts of our land and of foreign lands. German departments of geography make much of the training in geography given their outgoing commercial agents and consuls. These are the men who ought to know, for the sake of their business, the climate, people, and products, as well as the nature of markets in many lands.

6. The merchant who buys direct in many lands or who thru jobbers receives goods from, and sends goods to, distant markets would at least act more intelligently were he familiar with the conditions in these lands, to say nothing of the advantage of knowing place relations abroad. I have talked with some who did not even know the latter. All that has been said of the merchant applies to the manufacturer. Men concerned with the greater transportation problems, both railroad and steamship service, while in a position to learn much good geography, would be thankful if they could have possessed more accurate knowledge or at least the fundamental principles of the science when they began their careers.

7. We intrust our defense to soldier and sailor. They know not into what land or sea they may be called. A thoro knowledge of lands, routes, resources, and peoples would guarantee us more intelligent and hence more efficient service. The training of officers of course is the most important, but in days of action promotions are rapid; and the captain, if capable, may step up the degrees very quickly and should be ready. No small number of our soldiers and some sailors come from the university, but the most of them enter the service with no education but that of the public school. Greater efficiency in the latter then would reach the ranks. The military and naval schools and boys' academies fostering the military spirit, can do the country a service by insuring an adequate training in regional geography.

8. We have in this country a large body of men engaged in exploration, cartography, and surveying, some in the coast survey, lake survey, land and geologic surveys, and some in

engineering work carrying out reclamation and irrigation projects; most of them within our own borders but some going abroad. These come, in part, from the army or the navy, but a very large proportion of them could not possibly get their training in the special schools for those branches of the public service. They are largely college men, and if fortified with a knowledge of geography must get it in college. That it would be of great value to men in any division mentioned is not difficult to see.

9. In the Federal Department of Agriculture and Federal and State Experiment Stations are several bureaus and divisions whose men have constant use for geography. The forester, the plant introducer, and the weather man are obliged to get their knowledge of geography and geographic influences as they need it day by day, having been unable in their college days to get more than a suggestion as to what is comprised in the science.

10. These special classes, while in some cases not numerous, aggregate hundreds of thousands; and thousands of men and women enter them every year. But there are ten times as many who need more knowledge of geography than the public schools can furnish, simply as general information; the reader of current literature, and especially that of the newspaper and magazine, wishes he knew where this place is, or what sort of people live there, why they can't raise cotton in this country, or what the geographic or climatic conditions are in that land, and why. The traveler, now a host in America, learns geography piecemeal as he goes, but he would appreciate and understand what he sees much more fully did he know more of the lands visited before he enters them. How shall he gain the requisite knowledge? As a matter of general information every one who cares to know about other lands, their physical and climatic conditions, and the human reactions with these physical elements, or who is interested in the resources and industries of foreign lands, would find it profitable to attend a course in geography while in college. As long as we have place relations we shall need to teach and study geography. Not a reader of the newspapers the past three

or four years has been an intelligent reader who has not consulted an atlas. And probably not a day passes but scores of readers have wished, just as a matter of general education, that they knew more of some country, of its people, crops, climate, and development, or that they knew why a product came from this or that place, or some other point which could be answered by a substantial course in regional geography. And if not answered by the course the pupil would at least have been put in possession of the means for finding the answer himself.

Specialists see the significance of the influence of geographic conditions in human affairs, but it will require some time yet for the principles now known to become as common property as are some of the fundamentals in zoölogy and botany. The student goes out of college now with a little chemistry, physics, biology, literature, or history upon which to place any further accumulations of similar information that he may require, but he has little opportunity to learn the elements of that cosmopolitan and universally useful science—geography—beyond the necessarily meager allowance of the grades.

With the modern trend of education toward the practical, the business, or the commercial side of life, geography becomes increasingly important and seems to be increasingly neglected.

II. Geography has also a real cultural and ethical value. It can not fail to broaden the pupil's vision, to cultivate in him a realization of the inter-relations and inter-dependence of each of us with all the rest. It thus makes for good citizenship and broad sympathy because it explains many elements of the inter-dependence of men and of nations. Of course it has its educational value; its acquisition promotes mental discipline; but this is true of all the sciences if well taught. Nothing more, and I believe nothing less, along this line should be claimed for geography than for the others.

Summary—While geography is of special utility to many individuals in many classes, it is of large general interest to the general college student or graduate. In order to reach

these thousands who do or should have an interest in geography, it is now very apparent that courses in the science should be introduced into the curriculums of several of our American universities. The science has a future. It is a practical subject. Its study is of value to all classes of students and its full development and scientific treatment in some American universities will open the way for better geography all down the line. It will train teachers and students in other fields as well as in geography, add to the equipment of the business man, diplomat, engineer, journalist, and agriculturist, and co-operate with other courses in giving to every student that general information and culture which makes for the breadth of vision, and depth of thought that every citizen ought to enjoy. Therefore because of its broad utility, geography is suitable for the university and merits a place among its several departments.

III Courses of instruction

What should be the character of the courses of instruction in the university?

In the first place, the group of courses should provide for research work, for out of the research comes the life of the subject and the material for instruction. It should be broad enough to touch all the related interests both on the side of the physical sciences and on that of the social sciences. There might well be a department of geography which should stand between these two groups of science. This department should develop along three or four lines, regional geography, physical geography, technical geography, and the research courses.

Under the general head of regional geography corresponding with the *Völker- und Länderkunde* of some German universities, could be given courses dealing specially with (a) North America, (b) Europe, (c) Asia and Australia, (d) Africa and South America, thus covering the whole earth in a four years' course. In the treatment, these major regions must necessarily be broken up into smaller ones so that each

unit of description and exposition would be a physical region. It might be a country as Italy, or two, as Spain and Portugal, or a part of one as the Appalachian region in the United States. Descriptions of the physical features and the climate and resources should be coupled with explanations as far as possible of these phenomena and followed by description of the cultural features, boundaries, towns, communications, industries, and human distributions always causally connected with the physical features. Apparent ignoring of the influence of legislation, prejudice, and various human powers is not taken to mean that they are unimportant, but that they are not geography. They will get their adequate treatment in the history, sociology, or economics courses. A second direction for expansion of the department comprizes the four courses, physiography of the lands, oceanography, meteorology, and climatology. The first three could well be put into one year's course at the start and the fourth into a half-year or more as time permitted. The latter might well be expanded from the technical course to the climatology of the various continents. The treatment of the four subjects should combine descriptive and systematic studies in each. Development and systematization are the centralizing themes in physiography; and classification and explanation in the second, third, and fourth subjects.

The technical courses should probably be left until late in the growth of the department, but may well contemplate work in the history of geographical discovery and exploration, in mathematical or astronomic geography, in cartography, etc.

The research courses were mentioned last because of the requirements necessary for them, but they should be among the first courses announced, and may take the lines of advanced regional studies, advanced physical geography, seminary or literature of the science and special teachers' courses. The first two advanced courses would continue the work begun in their respective predecessors and would probably be the thesis courses in the department.

A few teachers for such a department can be found in the present departments of geology, of history, and of economics.

Some men having a desire to do research work in geography ought to be prevailed upon to leave scientific bureaus and to enter the ranks of the university professor. At present, our geographic investigators are nearly all in the employ of the army, navy, colonial and diplomatic services, government bureaus, and surveys. Very few are in the universities. Enough investigators should be in the university to give to the general subject a standing among such other sciences as botany, geology, zoölogy, and chemistry, and the various engineering branches.

Among the teaching facilities both in the classroom and before the general public is the museum of geography. The value of this kind of instruction is too well recognized in other lines to need any special plea here, but a suggestion as to its content may be made. There should be three lines of expansion.

A. The map-room should possess the best maps to be had of all parts of the world. The large-scale maps issued by the various government or army surveys or scientific bureaus for various purposes furnish excellent basal material for the study of regions wherever they have been made, and complete series of each should be in the map-room. Good models of specific physical features or large-scale models of small regions are a great help in gaining definite ideas of places that can not be visited. Some of these maps and models show the topography or relief, others the geology, some the climate or phases thereof, some the natural resources, etc., while others portray the culture, routes of travel and communication, distribution of industries, and various vital statistics. Smaller-scale maps and models giving generalizations should also be provided. Photographs of physical features will constitute a valuable adjunct to the map collection.

B. The specimen-rooms should contain illustrative material of the various natural products of the several regions of the earth grouped so as to bring out geographic relations, influences, and adjustments; also manufactured products arranged with the same end in mind. Labels and groupings ought to show the inter-relations of different regions from

the commercial point of view. Photographs of growing crops, methods of culture and harvesting, of preparation for use or market, and of other phases of collecting, using, or shipping the multitudinous products of each land should bring out the influence of geographic conditions and the responses thereto. Photographs of buildings in various climates and countries could show how the style of architecture, method of construction, and building materials are affected by the natural conditions and the resources of the country as well as by the state of development of the people. The central idea in all this collection should be the controlling principle of geography, and not the technique of the industry nor the love of the wonderful or bizarre. Truthfulness should never be sacrificed to make a "good exhibit."

C. A technical exhibit should contain instruments and apparatus used in various kinds of geographic investigation, map- and model-making, ocean exploration, geographic surveying, atmospheric studies, etc.; illustrations of the progress of discovery and exploration, ancient maps, models, diagrams, etc., showing the development of the science. In one section could be shown graphically, or better with models, what projection in map-making means, and what the various projections employed really are.

All three of these divisions are capable of great usefulness, and each would have to be continually added to because of the constant progress along all three lines.

Of course a section of the library would be devoted to geography and would be kept abreast of the times in the various divisions of the science.

In conclusion, let me say that parts of this article outline ideal things, at least so far as this country is concerned, but the ideals are worth working for. Some of them have been reached in Europe. Germany with 60,000,000 people and an area of four New York states has seventeen universities in which may be found one or more professors of geography. In a few there exists a department of geography, but usually the courses in geography are organized in the group with history, economics, or geology, rarely the latter. The University

of Berlin offers work in morphology of the earth's surface; oceanography; the Alps in the Ice Age; general anthropogeography; geography of ancient Greece, of the Mediterranean countries, and of Palestine; history of cartography; exercises in cartography; historical geography; regional studies on land and sea; also, seminary and colloquium courses; courses in astronomic or mathematical geography; meteorology; climatology, etc. No other German institution seems to be quite as fully manned as is Berlin. A number, however, give five to ten courses in geographical science.

In the University of Paris, morphology of the earth's surface, oceanography, general anthropogeography, exercises in cartography, regional studies on land and sea, seem to be fairly well duplicated, and in addition there are offered several courses in general colonial geography and the geography of North Africa with practical exercises. Other French universities have similar but shorter lists of courses. In fact, nearly all European nations have one or more universities in which there are professors of geography and courses offered, not alone in physical but in general or regional geography. English universities are coming to the front, but their professors still deplore the fact that they are so far behind the needs of the nation in their offerings and facilities, and that they can not make as good a showing as can the continental states. There are thirteen English universities providing for instruction in geography, among them conservative Cambridge and Oxford.

With our greater population, broader territory, and phenomenal natural resources, our aggressive and open-minded people, our growing world interests, and boasted educational systems we are far behind the European countries in college geography. Whatever advance has been made in public-school geography teaching in America in the last few years, very little credit therefor need be laid at the doors of our universities, tho much is due to individual university teachers. If we would be a world power, give our young men a broad horizon; let them know the world and develop comprehensive world sympathies; if we desire to make the

best investigators, explorers, surveyors, commercial agents, business men, and agriculturists, we can scarcely afford to neglect this important opportunity for training and culture. And from the research side we should not be content with learning what others are doing, but should be contributing systematically to the fund of the world's geographic knowledge.

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VII

FROM MANUAL TRAINING TO TECHNICAL AND TRADES SCHOOLS

It can not be doubted, and ought not to be disguised, that the early and general belief (before the days of public high schools and so many colleges) that the elementary school system was amply adequate to the needs of the country has been much shaken in the last quarter-century. It is not because of the lessening of either highly trained or popular interest in education: indeed, it is because all manner and grades of education have become more and more a passion with all classes of our people. It is not because of any waning confidence in our educational theories, or in the basic principles of our public schools. The "equal chance for all" becomes more and more valued and jealously guarded as our fundamental political theory works its way out in our governmental practises. The American people have become so accustomed to making and managing schools that they have but indifferent interest about those in which they do not have some sense of proprietorship. But common sentiment, uncertain for a long time, has reached a very confident belief that new situations have arisen which the elementary schools do not reach, and that something rather decisive must be done to adapt their work to the possible expectations of children who are not going to the high schools. It is seen that they must have more definite aims, and must make sure of more exact industrial conclusions, if they are to meet the imperative needs of the children of the wage-earners, as well as the economic, intellectual, and moral necessities of the country.

This development ought not to surprize us. It has come upon schedule time. It is in the natural order and it is healthful. Schools supported and managed by the public can hardly be expected to anticipate conditions or to outrun popular needs.

Neither the foresight nor the warnings of the schoolmasters make much impression. In their essentials the schools respond to public opinion. Before they create new social states they are the instruments of older social situations. New understandings stir and solidify sentiment, and then the school boards and the schoolmasters make the plans for giving effect to it.

The situation results from the fact that every American is entitled to his chance, and because of American temperaments and ambitions. We tell the children in the schools that they are of small account if they neglect their chance. They hear less about increasing their efficiency in ordinary undertakings than they do about going higher up. The "higher up" refers to lawyers, and surgeons, and engineers, and masters of great works, and admirals in the navy, and the presidency itself. The schools which are thought to lead to these positions are literary and classical; if they are scientific, their interest is only in the sciences which are vital to the professions. Our high schools are therefore literary and scientific in this sense. It is true that they have done a little something in manual training, but they have taken good care not to do enough of it, or not to do the kind of it, *which would create the danger of their pupils learning a trade*. About all of our educational activities have led *away* from craftsmanship. We have gone on training for the professional and managing vocations until the educational system is unbalanced. If we were to train for vocations at all, we were bound to give all vocations an equal chance. Either we have not seen the greatest need or we have not dared to do the thing most needed because it was not in line with the usual inspirations and ambitions. We have made ourselves believe what, when generally applied, was fallacious and simply impossible. We have misled children and that has made misfits.

For perhaps three decades we have had a vague notion that there was something wrong about our educational system because so many children were going away from the manual industries. To meet the difficulty we have, in an awkward

kind of way, and without any very consistent theory or any very definite plan about it, added manual training annexes to our high schools. We have listened to the manual training leaders with some condescension because we have realized that something in the direction of what they were talking about was desirable, but we have listened to them with so little confidence that (in order to float at all) they have had to spend most of their time looking out for snags. The people who do things only or mainly with their heads have looked upon the manual training exhibits with a kind of admiration which was not psychologically any too clear, and the real mechanics have viewed them with feelings in which skepticism and amusement were mixed.

We have placed the little work in our schools which has any application to manual dexterity so high up in the system that the children who are to work with their hands never see it, and we have distinctly said that our manual training schools were not intended to train for any particular vocation. We have even said that they were to be nothing but culturing institutions which would develop all the attributes of the human being harmoniously, and, very particularly, that they were to quicken the intellect by increasing the dexterity of the hand. In practice we have kept faith with this theory, for the public educational system of the country has taught no trades, and, without intending any slight, it must be added that its industrial schools have been arranged and taught by men who were essentially theorists and not specially skilful as craftsmen themselves. The result has been that our industrial training has until now had practically no relation to our common hand industries.

Of course it could not avoid exerting some very desirable influences and accomplishing some very good things. It has done something towards preparing pupils for the higher technical schools and the mechanical colleges. It has recently begun to establish advanced technical schools in the larger cities which have many factories where the work is done mainly by machinery. Nothing can be more desirable than keeping the operator ahead of the machine. That has not

gone beyond half a dozen cities, however, except in discussion, and in a discussion which deems it prudent to avoid issues with the labor unions by asserting its good purposes not to teach trades. While much has been done in the public educational system towards training for professional vocations and positions of leadership, practically nothing has been done in the way of training hand workmen. The net result has, on the whole, *actually discredited real craftsmanship*.

The public school system has shunted this thing off so persistently and completely that private philanthropic and proprietary schools and a few of the great manufacturing establishments have taken it up either as a charity, or for gain, or from necessity. But private schools have made, and are likely to make, but a slight impression upon the large problem, for the American people are too much accustomed to proprietorship in education to give much adhesion to schools in which they have no fixt rights.

While this situation has been developing, the old way of training boys for work thru apprenticeship has practically disappeared. Employers do not want to be bothered with apprentices, and workmen not only have some of the same feeling but are apprehensive about more workmen lowering wages. On both sides the motive relates, in much greater measure than it should, to the present hour and to immediate profits or wages. Even the number of apprentices approved by the rules of the labor organizations is not being trained in the factories or the trades.

Meanwhile the manner of family living has greatly changed, and girls in vast numbers, who are no longer trained in the household arts, are becoming generally inefficient, or seeking public employments at low wages and excluding boys therefrom.

With all these things, and some other things, the primary schools are in trouble. They are better supported and better organized than ever before. They are taught by teachers who are uniformly better trained for their work than ever before. But specialists and enthusiasts have overloaded them with work and theories that consume time unprofitably, and they un-

doubtedly come short of meeting some of the most urgent needs of a new situation. It is not that all of the difficulty is outside of the schools. Some of it is inside. They are to be judged frankly but truly. And, anyway, the real question is, what is the matter and how can it be mended?

It has been widely assumed that the children in the elementary schools remain to finish them; but not more than one-third of them do so. At least, that is so in the cities; and in the country there is neither beginning nor end. Half of the children in the primary schools of the cities do not go beyond the fifth of the eight grades.

The law compels attendance only till the age of fourteen, and parents often reason that obedience to the mere letter of the law is all that is necessary. Not a few parents fall short of that; and the people in general give very little support to the officers who try to enforce the attendance laws.

We need not only to modify our ideals about the work that is of the most worth to the country and its people, but quite as much we need to take a reef or two in the sails which we are presenting to the breezes of freedom. In any event, some authority will have to assume control over children, and we shall have to come squarely to the point of requiring children to be in school when they ought to be there. No nation has ever prospered which did not do that, and we are not likely to be an exception to the universal rule.

Then the primary schools have no definite aim unless it be to send children to the high schools, and thus to some professional or managing vocation, and wage-earning fathers are not much interested in that. They reason, doubtless, that their children will not be better prepared to earn a living in the way they must earn it by staying in school, and that they might as well try to have them pick up some earnings at once.

Again, it must be admitted, I think, that the schools are behind the ages of the children. A boy at fourteen becomes restless under the direction of a woman teacher, and tires of the work which is set for him in the fifth grade. If the studies in the elementary schools are not too many they are certainly too much drawn out. There are too many books in

one branch and too much rather fanciful exploitation. The educational conventions give too much time to novelties. There are so many conventions that the discussions run afield. The schools illustrate and experiment too much. They are indifferent about the time of pupils, and they do not fit children for any definite work unless it is professional or semi-professional. So, two-thirds of the children do not remain to finish the primary schools, and, even tho they remain to the end, there is much complaint that they are not prepared to do any definite thing unless it be to go to the high school.

The high schools and academies, the colleges and universities, the advanced technical schools, and the professional schools, which are either public or exact only low fees and offer many scholarships, are more than adequate to the training of all the "professionals" or "intellectuals" that the country can use. Indeed, they are so overstocking the professions with misfits, and turning youth from craftsmanship, that if the thing goes on indefinitely the country must be the poorer by it.

But there is a rather virile democracy in this country. It has not yet gone so far in education and industries as in politics and religion. It is getting under way, however. It wants all that belongs to it and intends to have it. It is being waked up by the trades schools and all of the industrialism of Europe, and particularly of Germany. It sees that in twenty-five years the German exports of home manufactures have grown more rapidly than the American, notwithstanding the great expansion of our occupied territory, the great enlargement of our towns, and the splendid intellectual advance of our population, and it does not fail to see that labor and skill are larger factors than materials in making it so. It is beginning to discern the fact that the universality of labor and the development of skill are great factors in generating moral and intellectual power in men and women, and in adding to the strength of nations, as well as in operating factories and in enlarging profits.

Our democracy is beginning to complain that the school system discriminates in behalf of the well-to-do and in favor

of the intellectual employments. It really sees that there is less actual democracy in education in America than in some countries which have kings; that in some inscrutable way we have done more for the top of our educational system, which has few votes but is best able to care for itself, than for the bottom, with more votes and less power: and it reasons, erroneously no doubt, that the part which was best able to care for itself has done it with some selfishness. If it was thru selfishness, it was as misguided as selfishness usually is. But our democracy takes little account of reasons, or of processes, or of mistakes. It sees a situation and is bent upon changing it.

Happily these thoughts are not monopolized by any class of people; nor is this democracy exercised by any exclusive set of people. The interests and opinions of all classes are at last coming into accord. It is seen that there must be a new, a far more diversified, and a much more universal industrialism; and it is also seen that there is no escape from the fact that the public schools must be made to take the burden of it.

The newspapers and conventions are declaring for "industrial training," the schools and charitable institutions are trying to meet the demand, states are legislating for it, and a national organization has been established to promote it.

The only hesitating interests are the corporations and the labor organizations. They have to think about where they will come out in such matters as profits, and bread and butter; and with reason enough, based upon experience, they are skeptical about the schools being able to train real mechanics and turn out real workmen. The hesitating interests may be expected to be willing to experiment, however, under the pressure of popular opinion and in the presence of a great national movement. Certainly so in view of the fact that we have reached the point where there is no longer any efficient agency outside of the schools for training workmen; and where it is clear enough that the schools, with some reconstruction, may do it much more satisfactorily than any other instrumentality that can be provided.

What shall be done? First of all we must have a plan. It

must be definite. It must have all of the support that can be brought to it. To that end it must be fundamentally sound. It must be based upon our democratic philosophy and it must be workable. It must not avoid issues. It must be a plan which will commend itself to the interests of capital and which will appeal to the sense and reason of labor. It must help capital to safe and profitable activity; and it must hold out the utmost of opportunity to the children of the poor. It can not do that if in any way it aids one at the expense of the other. If it is a real educational advance it will go, because no one in America can then stand against it. One who hinders the opportunities of capital is a fool. One who would lay sticks in the way of every son and daughter of the nation making the most of himself and herself is not an American. Even tho his blood traces back to the *Mayflower* he is an alien and not of us. The clock is striking the hour for the full exploitation of our democracy in our education and in our industries, and no one shall stop the wheels or turn the hands back upon the dial. But the plan must be thoroly American. It can not be English, or French, or German, no matter how much there may be in their systems to commend them. Their ideals and their methods are not ours, for the inherent thought of the Republic is very exclusively its own. It will be absurd not to have full information. It will be ridiculous to reject what will serve us simply because another people have worked it out before we have. But there is no other people with our outlook and expectations. We may adapt but may well be cautious about adopting. Essentially we must create. And if we go ahead in the spirit of the Republic, guided by its political philosophy, we may do it without fear and with confidence. Any arrangement which does not articulate with the work of the elementary schools, and which does not recognize the need of progressive continuity, with some definite aim, from the first grade in the primary school up to the point where the child is capable of earning a living, will not succeed or endure. Of course it involves much recasting of the plan of the elementary schools. They will have to be relieved of so many studies, of so much tiring attenuation and repetition in the same studies, of so much psychological speculation and

wearrying preaching about methods in teaching. In the elementary schools, at least, the teachers will have to be allowed to teach, and not be kept from it by officials who are wandering and wondering about what kind of teaching is of the most worth. The value of the time element in the life of the child will have to be recognized. He will have to be taken in hand early, taught exact things, given power rather than information, and pushed along rapidly enough to be in possession of the implements of an intellectual workshop by the time he is fourteen years of age. The class of work which the school is doing will have to be abreast of the age and capacity of the pupils, and public sentiment will have to refuse to tolerate the superintendent or the teacher who wastes the life of a child. More regular attendance must be exacted, more intensiveness put into the work, and the child brought to the end of the essential parts of the present elementary course by the time at which the law now allows him to leave the schools altogether. Then in all considerable towns there will have to be established a wholly new order of public schools. These new schools will have to come immediately after and connect with the work in the primary schools. They will have to teach trades. They will have to respond to the local situation, teaching any trade when, say, twenty pupils apply for it. From the very beginning the elementary schools will have to have this in view. Aside from these schools teaching individual trades, it will be necessary to develop another kind of school of a more general character for the children who are to go into the offices and stores and factories. The evening schools, which have got started upon a very indefinite plane, may be utilized, but they will need much more support and a substantial reorganization.

We must cease declaring that we are only attempting to train all-around mechanics, only trying to dignify labor, only trying to culture the mind thru the hand, and have no thought of teaching those who are to work with their hands how to do something definite. That is the very trouble with the schools now. They are without exactness: they are profligate of boys and girls: they lack definite ends which the masses may see are worth gaining. They must advance from

"manual training" to technical schools and trades schools. The "culturists" must not be allowed to appropriate the technical and trades schools to their own refined uses.

The trades schools will absolutely require the sympathy and aid of the labor organizations if they are to succeed. But they will have that aid and sympathy if they are at least as much shops as schools; if they magnify doing and minimize talking; if they are taught by artizans who can establish their power to train, rather than by theorists who are indifferent mechanics; if they really prepare children to begin work, and train out of them the conceit that they know all that can be learned only thru much work and many years; and if they stand fair and evenly helpful to both in the unfortunate but inevitable contentions between capital and labor. The higher technical schools must of course multiply and strengthen. They are the main hope of superior products in factories where the work is done by machinery, and it is hardly too much to say that they are the main hope of superior manhood and womanhood in a land given to invention and almost submerged in machinery. But they have little to do with the great army who are to work outside of factories and without machinery, in carrying on the building industries. There is no conflict. Let us have whatever kind of a school the interests of a town demand. It is only necessary to recognize the fact that the common power must establish, and the common purse must support, schools which will qualify hand workers quite as much as head workers for their vocations; and that schools which do it must be flexible enough to meet local situations. It seems as tho the trades schools and technical schools must have oversight and necessary control over children for three or four years after they finish the primary schools and until they are seventeen or eighteen years of age, but not so far as to preclude them from regular employment and some wages. The industrial schools will have to be open afternoons and evenings and have such time of the pupil as he can give, with a minimum of four or five hours each week, and the employers will have to reckon with this public exaction upon the time of the pupil. As a child comes to the end of the elementary school his parents and he may well elect

whether he will go to a trades school, or to a technical school, or to the high school, or to work. If he has a liking for hand work and is in a non-manufacturing city, he may well choose a trades school; if in a manufacturing city, he will probably go to work in a factory, unless he has a fancy for a particular trade. It should be quite possible for him to take advantage of a trades school, or of a technical school, or of an all-around evening school, where the work will be of real interest to him. And in any event he should be required to respond to the oversight of the schools until he is prepared to begin, and has gained some interest in, an industrial vocation, or has started on the road towards a professional vocation, or has proved that his is a hopeless case. It will be said that all this means many more schools, many more buildings, the training of many more teachers, the recasting of present courses, great changes in the common thought and the common talk, much new legislation, and much additional expense to municipalities and to states. Of course that will be said. And it will be true. But there is no transgression about it that will have to be repented of. It has no smack of paternalism, or of socialism, or of charity, about it. It does not make gifts. It does not provide dinners, or clothes, or even medical attendance, for anybody. It means nothing but work. It preaches the gospel of self-dependence and of self-respect. Having gone as far as we have, must do this much more to be just. It is now within the rights of every child as much as the elementary and the secondary schools are within his rights. But even that is not all. The rational equilibrium between the exclusively intellectual and the decidedly industrial interests of the country must be restored and can hardly be restored without it. And not only the industrial efficiency, and the strength and balance of the nation, but the moral and intellectual health, and the solidarity, and soundness, and aggressiveness of the nation seem to depend upon it. The democracy of the nation will have to do it. Even more, the success of democracy depends upon it.

ANDREW S. DRAPER

VIII

REVIEWS

The Carnegie Foundation for the Advancement of Teaching—Second annual report of the President and Treasurer. New York, 1907. 124 p.

The second annual report of President Pritchett of the Carnegie Foundation for the Advancement of Teaching is one of the sanest and most lucid documents, public or private, that this country has produced upon its educational conditions in any of their phases. From beginning to end it is characterized by a soundness of judgment, a breadth of horizon, and a thoroughness of consideration that make it, not only a model of method to be pursued in such matters, but accord to it in its results a weight of conviction that is in most cases inevitable. Like its predecessor, it is not only a record of the action of the trustees in the immediate administration of the Foundation, but a wide examination of cause and effect in the field of education covered by its activities, and in the end it is evident that intelligently to administer the trust the whole field of education must be examined in its interrelations. The present report, accordingly, like that of 1906, while directly concerned with the granting of retiring allowances, and the consideration of applications from institutions of higher learning for admission to the retiring allowance system, deals also with the larger questions of education. There is, in point of fact, scarcely an important question affecting in a large way the nature of educational conditions in the colleges and universities and their present manner of satisfaction that is not trenchantly touched upon in these pages.

In the record of administrative action it appears that during the fifteen months covered by the report, three additional colleges were added to the accepted list of the Foundation, making the total number of colleges, universities, and technical schools now sharing in its benefits fifty-five. Full tables are given in

the case of these institutions of the statistics of administration, of student registration, and the requirements for admission. Since the inauguration of the Foundation, grants have been made to one hundred and sixty-six persons, eighteen of whom have died, leaving a total of one hundred and forty-eight individuals who are now receiving retiring allowances and involving a total annual expenditure of \$202,145. Individuals belonging to forty-three institutions not on the accepted list have benefited by the fund during the term of the report. Fourteen institutions on the list have not yet presented any professor for retirement.

A large part of the report is occupied with conditions of policy and its relations to the facts of educational organization. It is pointed out anew that the Foundation is not a charity, but an educational agency, whose centralizing influence makes in the end distinctly toward educational coherence and educational unity. The true function of the trustees of the fund, according to the report, is not to pass upon the merits of individuals, but of colleges; to decide upon such educational standards as seem fair and wise, and then to proceed to admit to the system of retiring allowances such institutions as, in accordance with these standards, come within the provisions of the charter and the deed of gift. The retiring allowance is emphasized as a right earned by service, and not a courtesy; but before it is possible to act wisely in its award, it must first be determined what institutions there are which on reasonable conditions are entitled to the privileges of the fund. It is this attitude of the trustees toward the administration of the Foundation, consistently assumed and logically carried out, that has already made it one of the most important influences that have ever been felt in the higher education in America toward system and standard, both of which under the circumstances of development have been almost utterly lost sight of as matters of national concern. Heretofore, says the report, the tendencies have nearly all been centripetal and the outcome is seen in the multitude of weak, badly organized, and in some cases unnecessary institutions. To better these conditions as first step is plainly one of elucidation and the board has accord-

ingly been compelled to bring together—and for the first time intelligently—the facts concerning the institutions of the whole country, “their method of government, their denominational relations, the value of each institution as a center of intellectual and moral influence, their financial resources, and, most important of all, their academic standards of work.”

The report considers in detail the whole subject of denominational connection and control in the higher institutions of learning. It concludes that denominational connection plays little if any part in the religious or intellectual life of the student body, and that denominational conditions are serious limitations and denominational control a hindrance and nearly always a source of organic weakness to the college organization. The grounds upon which such connections and control are defended—viz., a belief that such institutions are more likely to be conducted by strictly religious men; that financial assistance is readily obtained from the denomination concerned; and, most influential of all, that a constituency to which to appeal for students is thus provided—are rejected as conjectural only, and untenable in the light of experience.

The function of college requirements for admission is also considered by the report, on the necessary assumption that the nature of the requirements for admission affects fundamentally the character of the college. This illustrates perfectly the breadth of the field which it is necessary to survey and the ultimate extent, thru the whole system of education, of the influence of the Foundation. A determination of the requirements for admission by the colleges requires a careful consideration of their satisfaction by the high schools. “Unless,” says the report, “the college is to articulate with the high school, the system of education in any community can not be a consistent one. . . . The ablest professor is unable to impart instruction of college grade to a class of high school youths, and as the upper classes develop out of the freshman year, the standard of the freshman year fixes the standard of the college.”

The report, furthermore, discusses the use of the terms *college* and *university* as applied to educational institutions in

America. As is well known to be the case, these names have frequently been assumed with little regard to their meaning and with still less consideration of any inherent difference between them. There is, continues the report, an urgent need at the present time to secure a clear conception of the function of the college and of the university. "Once there can be secured general agreement as to where the high school leaves off and the college begins, and as to the distinction between a college and a university, it will be possible to effect far-reaching improvements in preparatory, college, and university education." To elucidate this matter in its various aspects the report considers the place of the college in American education; the history of the use of the term university in the United States; the evolution of the American type of university; and the difference between college and university in the United States and Canada. The article on the Association of American Universities, which is characterized, in the light of its printed records, as a club for common improvement and enjoyment, was written before the Ann Arbor Conference of the present year, when the Association by the adoption of a standard for admission to its membership amply justified its existence as an educational force.

The report is a document of extreme interest and value, not only to read, but to be digested by every one who is concerned with the facts of education as they are actually embodied in American educational methods, and with the true significance of these as elements of a possible system, which at some future time shall work together, because inter-correlated and commonly dependable. In the horizon which it opens it once more emphasizes the Carnegie Foundation as an extraordinary instance of a man in his acts building even better than he knew. The donor of the Foundation undoubtedly recognized that he was building wisely, but neither he nor any man could possibly have foreseen at the beginning the vital effect that the equitable and wise administration of this trust has already had, and in the future is destined still increasingly to have, upon the whole cause of education in the United States.

WILLIAM H. CARPENTER

The psychology of reading—By WALTER F. DEARBORN, Ph.D. Science Press. 135 p.+5 plates. \$1.00.

To any doubter of the practicality or of the scientific status of experimental psychology this book is to be recommended. The author has done a most thoro piece of investigation and, moreover, has succeeded in making both his methods and his results clear to a degree rarely found in the reports of the experimentalist. Consequently the results are available in a form which makes them accessible not merely to the expert psychologist but also to the lay reader and the thoughtful teacher of English. The latter with perhaps occasional aid from the psychologist may understand not only Dr. Dearborn's experiments but thru his book may get the essential results of Huey,¹ Erdmann and Dodge,² and others not available under ordinary conditions.

The full title of the book, *The psychology of reading, an experimental study of the reading pauses and movements of the eye*, conveys more accurately its real content than the shorter form, as no attempt has been made to study the interpretive activity of the imagination except as it is indicated by a longer pause of the eye at one point, a shorter at another, a greater or less distance between fixation points, or by regressive movements of the eye.

The importance of Dr. Dearborn's work is indicated by some of the conclusions reached:

Starting with the principle established by other investigators, that, in reading, the eyes fixate, then move with no perception during the interfixation movements, then fixate again, and so on with alternate movements and fixation periods, the investigations go to show that the average number of fixations per newspaper line varied among the individuals tested from 3.8 to 7.1. This means an average of 1.9 words to 1.0 words per fixation. In a line not quite double this length the corresponding figures were from 7.5 to 9.4 fixations and from 1.5 to 1.09 words per fixation. Habits of pausing about the same number of times in each line and for about the same length of

¹ *American journal of psychology*, Vols. X, XI, and XII.

² *Psychologische Untersuchungen über das Lesen auf experimenteller Grundlage*, Halle, 1898.

time for corresponding pauses are also found to be characteristic of rapid readers and to be more easily acquired in the shorter lines. There is also often a relatively slow and hardly distinguishable movement during fixation, since verified by Dr. McAllister's study of fixation with the aid of the moving picture camera, published in the first number of the *New Series of Yale Psychological Studies*. The perceptions are of words and syllables and not of separate successive letters whether conspicuous ones or those not differing markedly from each other, while in the reading of figures the successive fixations do appear. Slower readers usually make more frequent and longer pauses and they are less likely to make their first and last points of fixation inside the line than the rapid readers. Words and syllables welded together by previous experience are read in one unitary perception, certain elements serving as cues, while prepositions and conjunctions, being not regularly combined with any one word, must be perceived separately. Where lines of varying length and indentation are presented, there are distinct losses of time, as they render useless the formation of any habitual movement.

Ignorance of this fact has led us to give the child primary textbooks, especially readers, of varying sizes and forms of type and page, various styles of indentation, and the intermingling of illustration and text. These errors are illustrated by sample pages. The preference for the long lines in the early readers makes clear the fact that we are making it harder rather than easier for the children to get the rhythmic sort of motor habit most favorable to rapid reading.

The method by which these results are gained is that of photographing on a falling plate the reflection of a ray of blue light from the corner of the right eye of the reader. The method is open to the objection that it registers with accuracy only right and left movements of the eye. This does not vitiate the results, but they should be supplemented by additional investigation with the moving picture camera or a photographic plate moved laterally instead of or in addition to one moved vertically. Both method and results are amply illustrated by photographs of records and charts of many pages

actually plotted out with fixation pauses, etc., making possible both verification and independent research. Records and charts of children's reading are included.

At certain points there are hints of further investigations which would add much to the usefulness of those already made aside from the interest inherent in the additional results. This applies particularly to further studies of children, where there should be large numbers and many kinds or types of readers studied, in order to determine the individual differences, particularly between the good readers of the early school years and the slower stumbling readers.

This book must be regarded as a long step and a permanent advance toward a genuine psychology of reading and as such should interest every psychologist at all drawn to the problems of education and every teacher of methods in reading who lays any claim to scientific interest in his subject.

STUART H. ROWE

TRAINING SCHOOL FOR TEACHERS
BROOKLYN, N. Y.

English literature from the Norman Conquest to Chaucer—By WILLIAM HENRY SCHOFIELD, Ph. D., Professor of Comparative Literature in Harvard University. New York: The Macmillan Co., 1906. xiii+500 p. \$1.50.

The first impression derived from the reading of Professor Schofield's book is one of its satisfying richness. How many years of diligent and conscientious reading, of long and careful investigation, does it not suppose! This reading and investigation was not merely of a body of English literature written in the English language between the years 1066 and 1400. The task which lay before Professor Schofield was larger and more intricate than that, for example, which Mr. Brooke, the historian of the preceding period in the same series, had to confront. For in the earlier period the lines of development are comparatively simple—few forms to consider and few surviving representatives of the forms. Moreover, the literature of the Anglo-Saxons before the Conquest has a clearly defined and simple individuality of its own, and when it comes into contact with the literature and the life of

the rest of Europe, it does so only in an occasional and incidental way. After the Conquest, however, the situation is altogether changed. English literature is no longer a thing apart, is no longer sporadic in its manifestations; but itself a great coherent literature, it became merely a part of a greater all-comprehending medieval literature, French, Latin, and Teutonic. Its forms, its endeavors, its thought, all grow richer and more complex than ever before. With its growth in extent such purely technical questions as those of authorship, authenticity, and dialect, also add a great deal to the difficulties of the historian of the period. Some of these questions which are still fairly matters of controversy, as, for example, the source of *The pearl*, Professor Schofield is perhaps inclined to treat as too definitely settled. In a work of such abounding detail, however, a somewhat dogmatic form of statement was probably the only safe ground between the vague and uncertain and the controversial tone, both of which were to be avoided. In his management of detail, Professor Schofield has been remarkably successful. The book marches, it has plan and order and proportion. The mere bulk of the literature treated is not great—not so great as is that of any three later centuries of English literature. The individual texts, however, naturally demanded more separate attention, and it should be remembered that it is not merely Middle English literature that Professor Schofield has presented or that he could present. He has given us rather the English phase of medieval literature, and in his volume the whole of medieval thought and literary activity is implied.

The book is constructed on a combined analytic and chronological plan. Its method is to bring all the writings of one kind together, following out thus separately the evolution of each type. Within the limits of the sections, however, the discussion of the various types follows a strictly chronological sequence. The advantages of this method are obvious, and in no other way could the author so effectively have saved his book from becoming a heterogeneous mass of dates and names. The general divisions into which the material falls are not

numerous. There is a chapter on Anglo-Latin literature, another on Anglo-Norman and Anglo-French literature, a long chapter on Romance and a short one on Tales (fabliaux, fables, etc.), a chapter each on historical, religious, and didactic works, a chapter on Songs and Lyrics, and a page or two of conclusion. One appendix gives a chronological table of historical events and of the monuments of Latin, French, and English literature mentioned in the book, from the Conquest to 1400, and a second gives copious bibliographical references arranged to correspond to the chapter divisions. The section of the book which makes the strongest separate impression is naturally that dealing with romance, partly because of its length and partly because of the intrinsic interest of the subject, but partly also because Professor Schofield is here writing *con amore* and is drawing upon a store of information and experience which serves his every purpose. The special student might be glad to tarry longer here and there at certain points on the way, but the author has wisely refused to sacrifice his view of the whole by disproportionate discussion of doubtful and disputed questions. Moreover, the chapter is not merely clear and orderly—it succeeds also in conveying to the reader a realizing sense of the infinite variety and charm of medieval romance. One naturally misses a discussion of Chaucer and the Gawain poet, the detailed treatment of whom is reserved for a second volume. It seems a bit undramatic to give all the preliminaries and then stop just short of the climax. The remaining chapters of the book vary in length and in interest according to the subject-matter which they treat. Even unpromising subjects, however, are shown not to be without significance and human interest. The great body of religious and didactic literature, for example, which it would be so easy for a literary historian to dismiss as dull, uninspired and unprofitable, is generously, yet withal fairly, estimated.

Whatever final estimate may be placed upon Professor Schofield's book, there can be no question that for the student of today he has written the necessary, the essential book, for the period he has treated. Both special student and general reader

may go to it for help and guidance. What Gaston Paris did for medieval French literature in his well-known manual, Professor Schofield has done for Middle English literature; and were the master here to receive the homage of his pupil, we can not doubt that he would accept it with approbation and delight.

GEORGE PHILIP KRAPP

COLUMBIA UNIVERSITY

The American Constitution—By FREDERIC JESUP STIMSON. New York: Charles Scribner's Sons, 1908. 259 p. \$1.00.

Mr. Stimson's book on the Constitution consists of his lectures at the Lowell Institute, delivered in the autumn of 1907. The lecture style is retained in the printed volume, and, while at times the resulting colloquialism seems out of keeping with the dignity of the subject, yet upon the whole the effect is not unpleasant. Mr. Stimson argues strenuously for that view of our Constitution—and it is the only sound view—which regards it as the deliberate expression of the will of the American people as to the mode in which their fundamental and traditional Anglo-Saxon liberties were to be preserved, and their government, national and local, carried on. Mr. Stimson has made excellent use of the history of English constitutional development, and he never loses sight of the sharp distinction between the Anglo-Saxon and the Norman elements in that development, with their conflicting views of sovereignty. Particularly happy are some of the author's applications of constitutional history and doctrine to matters of present-day interest. He makes it perfectly plain in how great danger the American people are at the present moment of being led, thru ignorance or forgetfulness, to overlook fundamental principles in the nervous search for temporary expedients with which to check or to overcome economic or political evils. The temper of the book is admirable, and we can only hope that it may be widely and intelligently read.

We must object, however, to the statement made by Mr. Stimson that under our Constitution "the judicial powers are almost negligible, for, in a sense, the courts have none"

(p. 135). If he will read the decision of the United States Supreme Court in the recent case of *Kansas v. Colorado*, Mr. Stimson will see that the United States courts possess all the judicial power that ever was inherent in the sovereign people at the time of the adoption of the Constitution. Being a good lawyer, he would, we think, deduce from that decision the conclusion that the writ of injunction, being an element of the judicial power, is not subject to the control of the legislative branch of the government.

Nor are we clear that the statements made concerning the 14th amendment (p. 137) are either correct or fully appreciative of the meaning of that most far-reaching addition to our national Constitution. Being the last word of the sovereign people, is it not true, for example, that the 14th amendment repeals or nullifies so much of the earlier 11th amendment as may be found to be in conflict with it? No one doubts that the original provisions of the Constitution regarding the mode of choosing a president and vice-president were repealed or nullified in this way by the adoption of the 12th amendment.

What Mr. Stimson says about the proposal to elect federal judges (p. 193-94) is not strong enough. Not only are the arguments which he adduces in opposition to the election of federal judges conclusive, but there is one argument which he does not mention which is more powerful still. The moment a federal judge is elected by any constituency, that moment he will cease to be a national officer, and will become of necessity a particularist, reflecting the views and opinions of those who have chosen him. When appointed by the President, on the other hand, the federal judge becomes thereby a truly national officer, and he can freely serve the whole nation and its highest interests, regardless of the momentary clamor which may rise about him from the part of the country in which he serves. If federal judges are to be national, they must be chosen by some one who represents the nation in its entirety. That some one is the President, and the President alone.

Professor Poor, of Columbia University, in his newly published *Solar system* gives in attractive and thoroly readable

form the main facts relating to our visible universe. He takes occasion to correct not a few popular errors and brings the statement of modern knowledge down to date. He is rather severe, but not unduly so, upon the extraordinary views of Lowell in regard to Mars and its so-called "canals." (New York: G. P. Putnam's Sons, 1908. 310 p. \$2.00.)

Students and teachers of mathematics will find no little amusement and much profit in working thru from time to time the various chapters of White's *Scrapbook of elementary mathematics*. The author has brought together a number of well-known and some little known mathematical curiosities, and his book is decidedly worth having and studying. (Chicago: Open Court Publishing Co., 1908. 248 p.)

The newer methods of teaching algebra are brought out in *Graphic algebra* by Arthur Schultze of the High School of Commerce of New York City. His book is a very carefully made and well-arranged textbook, and for students of advanced algebra will be found extremely valuable. (New York: The Macmillan Company, 1908. 93 p. 80 cents.)

The latest addition to the well-known Heroes of the Nation Series is Miss Ruth Putnam's *Charles the Bold*. Particular attention should be called to the well-selected illustrations. Miss Putnam tells in an attractive and authentic fashion the life of the last Duke of Burgundy. (New York: G. P. Putnam's Sons, 1908. 484 p. \$1.35.)

The tragedies of Seneca are not much read, and we are glad to see an attempt making to reinstate them in the interests of classical students. Professor Kingery, of Wabash College, has made an admirable edition of *Hercules Furens*, *Traades*, and *Medea*. His introduction is well done and ample. (New York: The Macmillan Company, 1908. 310 p. 60 cents.)

A new elementary algebra that calls for no particular comment is by Frederick H. Somerville of the William Penn Charter School of Philadelphia. (New York: The American Book Co., 1908. 407 p. \$1.00.)

Tuckermann's *Simplicité* is an ingenious and suggestive reader of French pronunciation. It is naturally intended for beginners. (New York: The American Book Co., 1908. 128 p. 50c.)

It is a joy to see the newer books that are coming from the Clarendon Press. No others are so well made and so attractive to the eye. This praise applies particularly to the edition of Scott's *Legend of Montrose* which has just been issued. (Oxford: Clarendon Press, 1908. 232 p. 2s.)

A year can be spent to great advantage by secondary schools in giving to their pupils a course in physical geography, if the method followed is one that could readily be based upon the *Laboratory lessons in physical geography* just published by Messrs. Everly, Blount & Walton. The book may be used by other teachers and students, and makes provision for notes. (New York: The American Book Co., 1908. 246 p. 56 cents.)

An excellent reading book for college students of English is provided by Professor Cook and Mr. Tinker, of Yale, in their *Select translations from old English prose*. The most genuinely interesting selections are those from Bede, from Alfred's *Orosius*, and from Boethius. (Boston: Ginn & Company, 1908. 206 p. \$1.25.)

The amount of apparatus for teaching English is becoming very great and it is surprising what a high standard of excellence it maintains. A good example is *An introductory course in exposition*, by Miss Perry, of Wellesley. (New York: The American Book Company, 1908. 218 p. \$1.00.)

Secondary school teachers who are carrying serious laboratory work in zoology will find much use for the *Laboratory manual of zoology*, prepared by Miss Burnet of the Woodward High School, Cincinnati. (New York: The American Book Company, 1908. 112 p. 50 cents.)

IX

NOTES AND NEWS

An Opportunity for American Teachers

The National Civic Federation has completed arrangements for the visit of 500 selected American teachers to Europe during the coming autumn and winter, in order that they may have the opportunity and privilege of studying foreign educational institutions, problems, and methods. This plan is the outgrowth of the very successful undertaking which Mr. Alfred Mosely, of London, organized two years ago for the benefit of teachers in Great Britain and Ireland. The National Civic Federation has put the matter in the hands of its Department of Industrial Economics, and with the Chairman and Secretary of that Department twelve representative American educators have been associated as an advisory committee.

By the terms agreed upon between the National Civic Federation and the steamship companies, 500 selected teachers will be taken to European ports and back for a round-trip rate of \$25.00 for the ocean fare. Teachers taking advantage of this greatly reduced rate, which is in fact one-fourth of the usual standard rate, will be given the best accommodations available in the second cabin of the steamships to which they are assigned. The second cabin accommodation is now much better than the usual first cabin accommodation of a dozen years ago. Teachers who prefer to travel in the first cabin can not take advantage of an equally reduced rate, but they will on application be assigned on steamships that will carry them to Europe and return at the minimum published first cabin rate.

The trip to Europe must be made between the months of September, 1908, and January, 1909, and the return trip must be made between November, 1908, and March 15, 1909. No

teachers will be selected except those engaged in elementary and secondary teaching, in industrial and technical schools of elementary and secondary grade, and in institutions for the training of teachers. Individual applications from teachers will not be considered. Nominations must be made by boards of education, boards of trustees of individual institutions, or other appropriate educational authorities. In acting upon these nominations, the National Civic Federation will give preference to nominations made by those educational authorities which propose to continue the stated compensation of the teacher named during his or her absence on this trip. The purpose of this regulation is to induce educational authorities to look upon the trip, not as a mere holiday excursion, but as a professional visit of study and inquiry made in the interest of the teachers themselves, and in that of schools or school systems which they serve. All applications should be addressed to the Executive Secretary, Dr. Roland P. Falkner, 281 Fourth Avenue, New York, who will give full information as to the probable cost of a trip of any given duration.

Thru the generous and efficient co-operation of Mr. Alfred Mosely, the visiting American teachers will be met by reception committees at the ports of arrival, and elaborate plans for their entertainment, for saving them unnecessary expense, and for directing and assisting their visits and inquiries, have been made.

The school authorities of the United States may well vie with each other in sending their best and most alert-minded teachers to take advantage of this exceptional opportunity.

**An Unfortunate
Americanism**

A correspondent of the REVIEW has called attention to the fact that a distinguished scholar, residing in a distant country, received word that he had been made Bachelor of Science by an American "university," and that the officers of the institution offered to make him a Doctor of Science if he would forward the "necessary graduation fee" of 120 marks. The statement sounded sufficiently familiar to induce some little examination into the history of the "university" in question. It publishes

a catalog and possesses apparently some of the nominal attributes of a university. Its catalog, however, fails to give any statement as to its history, and it does not mention the date of its incorporation. From another source, however, the date of incorporation of this "university" was ascertained, and also the following facts:

In the year of its incorporation, this institution granted one each of the following degrees: A.B., A.M., LL.M., Ph.D., D.C.L., and LL.D. Of these, three were granted to officers of the "university" itself.

In the following year, this rapidly growing institution granted two degrees of A.B., one of B.D., one of LL.B., four of A.M., one of M.S., one of LL.M., two of Ph.D., one of S.T.D., three of D.C.L., and one of LL.D. Of these degrees, six were granted to officers of the "university."

Of the sixty-four names of graduates contained in the last catalog, several individuals being enumerated more than once under different degrees, twenty-four are names of officers of the institution itself and apparently three are names of members of the families of the officers. The faculty has fared reasonably well. Ten of its members have received one degree each, three of its members have received two degrees, while one of its members has been granted three degrees. The fourth year since its incorporation has not yet elapsed. Perhaps the following sentence from the catalog will be of service in estimating the standing of the "university": "Every course and every degree may be taken in residence or out of residence."

May the assertion be ventured that this sort of thing makes American education ridiculous, and that our unwillingness or inability to prevent it is one of the indications how much the American people have yet to learn of the distinction between the real and the sham?

Salaries and Efficiency

School officers who are studying the question of teachers' salaries in connection with teaching efficiency, should make haste to read with care the report upon the salaries, efficiency, and improvement of teachers submitted to the Newton (Mass.) School Com-

mittee by Superintendent Spaulding, and recently printed by the committee as a document. Mr. Spaulding has gone carefully into the elements which should determine the question of teachers' salaries, and has succeeded in devising and putting into operation a plan which, for communities not too large, will probably work extremely well. In brief, his proposal is to fix a stated minimum or regular salary for all permanent teachers, and then to pay in excess of that minimum for worth or efficiency.

He proposes to exempt from the present operation of this rule a certain number of teachers who, while not highly efficient, have been for a long period of service faithful, conscientious, and devoted, and who are good teachers as the average standard goes.

Mr. Spaulding faces squarely the difficult problem of determining efficiency, and he comes to the extremely simple and wholly logical conclusion that in such a community as Newton no method of determining teaching efficiency is open to less objection than the one which accepts the best judgment of masters, supervisors, and superintendent—the judgment in the case of each teacher to be deliberately formulated by these supervisory officers in consultation, the superintendent directing and assuming the final responsibility for the ultimate decision.

Naturally, human judgment will not be infallible in this matter, when it is so frequently fallible in other respects. Errors of judgment will from time to time occur, and must be corrected when made known. But in the long run, trained school supervisors, acting under a high sense of professional responsibility, are the best and most equitable court of appeal for a teacher to rest upon.

Superintendent Spaulding's report is of much more than local interest.

**College Admission
Requirements**

The question what studies should be required for admission to college so as to secure the requisite qualifications for a collegiate course is a perennial one, and much thought has

already been given to it by the faculties in our higher institutions of learning. Fifty years ago the movement to increase college requirements was in the right direction, for too little preparation was then demanded for entrance, but it is now the testimony of a majority of teachers in secondary schools, that these requirements in the leading colleges have become excessive. They induce hurried and superficial work in preparation; they protract unduly the period of pupilage; and they have made a higher education more expensive and thereby less accessible, except to the wealthier classes who do not always possess the greatest intellectual ability, and are more likely to become intellectual degenerates. As most of the ablest men come from the poorer classes, it would be both a public and a private calamity if it should become harder for poor boys and girls of ability to gain the mental culture they desire. It would be a still more grievous loss if by postponing the time of graduation family life should be impaired. The longer marriage is delayed, the less likely men are to marry. A college education should not contribute to the modern tendency to celibacy. Detrimental as the increase of college requirements may be to economic and social interests, it may be even more harmful to sound scholarship. Sufficient time is not now given in preparatory schools—which fit for the best colleges—if we can trust the testimony of competent teachers, to properly assimilate the mental food which the schools supply. There is too much cramming and too little leisure for reflection and review. What is hastily acquired is more readily lost. Less is known than if less were taught. An inferior quality of scholarship is produced, where the pupil is hurried over so much ground, and forced to learn so many subjects that one study soon obliterates the impression made by another. Physicians also complain that the amount required for admission seriously interferes with the normal physical development. Not enough time is left for rest, for play and outdoor exercise.

The present condition has arisen not only from the laudable effort of the colleges to improve their scholarship, but from the increasing desire of their faculties to carry on more advanced and less elementary work. The departments of French,

and German, and history, and English, and some of the sciences, demanded more consideration in preparatory schools. Optional courses soon became a necessity in order to satisfy the conflicting claims of these different departments, and, on the whole, these options—where they have been wisely regulated—have been advantageous. They have fostered individual peculiarities and have brought to the colleges many who would not have chosen a collegiate education, had they been restricted to the rigid courses in the classics and mathematics which formerly prevailed, but they have not diminished the increment of college requirements.

When Smith was opened in 1875 it adopted the prevailing requirements of New England colleges. Since then the requirements in geometry have been advanced 150 per cent. and in algebra 50 per cent. The requirements in English and history have been more than doubled; an elementary in a modern language or in the sciences has been added; and while the classic requirements have remained nominally about the same in amount, the greater emphasis placed upon reading at sight and prose composition has necessitated more work to meet successfully the examinations. Corresponding changes may be found in all the leading colleges for men and women. These changes were initiated for the most part without intercollegiate conference or sanction, and without consulting preparatory schools. The ambitious younger colleges were constrained to follow the lead of older institutions lest they should be charged with maintaining a lower standard. On the assumption that the standard of scholarship in a college is to be estimated by the amount required for admission, their faculties generally were unwilling to oppose the movement for increase, even when some of the more experienced members were convinced that it was not for the best interests of the intellectual life; until it has come to pass that just about twice as much work is required today as was required fifty years ago to enter the leading American colleges. There are many schools indeed—especially in the South and West—which bear the name of college and university, whose requirements for admission are still altogether too lax, and whose standard of scholarship is de-

plorably low. But they are not representative types of the American college. They should more properly be classified with high schools, and no account need therefore be taken of them in this discussion.

In consequence of existing conditions it has been proposed to shorten the college course to three instead of four years, on the ground that students are really a year in advance of what they were a generation ago, but that seems an unsatisfactory remedy for the evil, for it may well be doubted whether a year of college life is not more profitable to most students than an extra year would be in preparatory schools.

The colleges for women, thus far, have been constrained by the desire to demonstrate the capacity of women for a collegiate education to adopt substantially the same requirements for admission as the colleges for men. That demonstration has now been made. For a quarter of a century it has been clearly shown, that women can meet as successfully and profitably as men do the highest tests of scholarship. No concessions have been asked to enable them to secure a truly liberal culture on account of their intellectual inferiority. The colleges for women are now in a position to act with greater independence; and they can adopt such regulations as may seem best to secure the mental culture which the college represents, without implying the incompetency of women for a collegiate education. It would seem, therefore, an opportune time for them to give a thoro revision of college requirements, and to determine what changes can be made to liberalize and to improve the quality of the education which these colleges aim to give.—*From the Annual Report of President Seelye of Smith College, 1907.*

The American Branch of the Association for International Conciliation is issuing a series of timely and authoritative pamphlets on questions dealing with the development of international good-will. Those already issued are: Program of the International Conciliation, by Baron d'Estournelles de Constant; Results of the National Arbitration and Peace Congress and a League of Peace, by Andrew Carnegie; Results of the Second Hague Conference, by Baron d'Estournelles de

Constant and David Jayne Hill; and Work of the Second Hague Conference, by Dr. James Brown Scott, of the State Department. The series will be found on the shelves of the important libraries thruout the country, and copies will be mailed to institutions or individuals, without charge, upon application to the office of the International Conciliation, Substation 84, New York, N. Y.

The EDUCATIONAL REVIEW finds it necessary from time to time to call attention to objectionable practises in some part of the field of education which are brought to its notice by readers and correspondents.

The Superintendent of schools in a large city has recently sent to the EDUCATIONAL REVIEW a copy of a letter address to him officially by a business corporation. The Superintendent who received the letter objected, not unnaturally, to its contents. So does the EDUCATIONAL REVIEW. The letter follows:

“You often need desirable persons for various positions in your High School. We wish to be of service to you in finding the right candidates for such places. The service charge to our members is 5 per cent. of the first year’s salary. If you, or some one whom you may select will report *new* vacancies to us, we will pay 5 per cent. of the ‘service charge’ when the position is filled by our applicant. An application blank for membership with us will be sent you on request. We shall appreciate receiving the names and addresses of your faculty.

“Please let us hear from you soon, as we wish to employ a representative in your city.”

EDUCATIONAL REVIEW

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I

MUD AND NAILS

The Professor—I mean a college professor, not a chimney-sweep, nor a *prestidigitateur*, nor a vender of imitation jewelry—the Professor, I say, had been greatly diverted by certain utterances of his two little daughters. One was eight, slender and dark, with something of the Peruginesque Saint in her features; the other, five, with eyes big and blue and hair all gold, a well-fed, boisterous little pagan with Venetian exuberance of flesh and color. They were, to be sure, a trifle unlike in temperament, but, after all, the principal ground of their dissimilarity lay in the superior education of the Saint; she had been in school two years and had learned, besides, a few of the old Greek stories, from friends of the family.

Sitting before the fireplace one evening with the Professor, who from time to time replenished the blaze with the dry and half-rotten remains of the old lawn fence, which had become unfashionable as well as useless—lawn fences had gradually gone out of style in the community as one professor after another, under the pressure of *saeva necessitas*, had deferred the reconstruction of his own—they were seeing things in the crackling embers. She of the saintly aspect, gazing with eyes of reverie into the glowing mass of half-consumed wreckage, had suddenly exclaimed, “I see Hercules with his club!” whereupon the golden-haired one, roused to emulation, had cried out, hoarsely, “I see nails!” On the day before,

too, as they were playing about the old postholes in the lawn, the Professor had heard them cry out, the one, triumphantly, "I see Perseus and the Gorgon!" and the other, a trifle belated and embarrassed, "I see mud!"

Of course, being a college professor—and a trifle old-fashioned, too, in spite of his comparative youth—he had seized upon the incident with the homiletic instinct, mentally given it a label, and put it in the appropriate place in his moral card-catalog. The more he reviewed it, the more he felt that his little daughters had unconsciously reflected the two great varieties of the human kind—those who see the circumstances of life as mere mud and nails, blinded to the essence of things by what in them is real, tangible, and practical; and those who are happily deluded into seeing the essential by not being able to see things as they seem to be. The latter variety, it seemed to the Professor, were greatly in the minority—he had but a limited number of acquaintances who saw poetry in life, whereas the number of people who saw no farther than mud and nails seemed to him infinite.

He could not find it in his heart to blame them—the practical was so obtrusive and insistent, and visible creation so easy to see. He sympathized with them more than he would at all times have cared to confess. The fact was, the mud and nails of his own existence were plentiful enough, and gave him no slight trouble. He never could tell when they would insist on being lookt at in all their ugliness. They were his unbidden guests at many a feast; he was never entirely safe from them. He felt as apprehensive of them and as helpless before them as one feels who has taken the Daughter of the Vine to Spouse and expects the return of the fabled enemies of the mother of mankind.

The Professor had them again today. It was a blue Monday, in October—it rained, and the wind was never weary; at every gust the dead leaves whirled against the window-panes—one of those gloomy, cold, rainy Mondays when the tears of Nature, tho more visible to the world, were hardly more numerous than the droppings from the eyes of her coeducational daughters (perhaps of her sons as well) in

the secluded rooms of the Latin quarter. The Professor was sitting in his study, alone. It was a long time since he himself had contributed to the moisture of blue Monday—he had been a Freshman fifteen years before—but he was no stranger to the influences of the day.

It was so gloomy that the Professor could hardly see the page, and he was so under the baneful influence that he could not keep his mind on its contents anyway, so he laid his book down and gave himself completely over to the impulse which had been assailing him with more or less success all day. He had been studying a bit of Milton with his class that morning, with results that seemed to him the last straw. There had been a distinguished visitor present, and the students had done their worst. He could forgive their stumbling over meter, and even their barbarous mispronunciation of proper names—they had never had even small Latin, and of course less Greek was out of the question under those circumstances, and the Professor knew from experience that the major portion of English literature, or of any other great literature, would always be a dead letter to students thus deficient.

But they had gone farther than that, and outraged him by displaying a degree of ignorance incomprehensible even to anyone acquainted with their daily ways, to say nothing of one who, like the distinguished visitor, had been in college before shoddy education came into vogue: they had not known who Miltiades was, or who fought the battle of Marathon; had told him, in uncertain tones which betrayed an interrogative attitude, that Adam was the first murderer—had killed his brother Cain—that Amphion was a two-handled measure containing about a bushel, and had asked him whether the quotation “five times received I forty stripes save one,” which he had inadvertently used—he was always forgetting that scriptural quotations were mystifying—had anything to do with Ali Baba and the Forty Thieves.

And as if that were not enough for one day, when he got home after his recitations he found awaiting him a letter from a graduate of his college,—asking for references, of

course; he rarely heard from his former students unless they wanted something,—a letter displaying the usual evidences of simplified and individual taste in spelling and punctuation, and with more than the usual innocence of anything even faintly suggesting style—just mud and nails, that was all.

Then came the weather with its gloom, and the Professor gave it up, sank back in his chair, and prepared to be as comfortably miserable as possible. He knew he would get over the attack, for he had had attacks like it before. Besides, he was a Horatian, and his Horace had taught him that the heart well fortified with wisdom

*sperat infestis, metuit secundis
alteram sortem,*

and that Jupiter drives away bad weather as well as brings it; that Apollo is not forever aiming his shafts, but sometimes pauses to touch up the lyre, and that, even if the outlook is hopeless now, it will not be always so. He knew that Nature's soft nurse would knit up the raveled sleeve of his care, and that the poetry of his profession was likely to be visible again on the morrow. So hail, divinest Melancholy! He would let the current sweep him where it would for that afternoon.

For the Professor was very much like men in other walks of life and occasionally had his doubts as to the wisdom he had displayed in the choice of a profession. Not that he felt better qualified to succeed in some other profession: indeed he suspected that there was a great deal of truth in the popular view that a real college professor was fit for nothing else, and never would have been. That was not it. It was not his own fitness so much as the profession itself that he doubted. The fact was that, tho he was still young—he had been out of college only ten years—he had grown so familiar with the processes and results of what was called education, and so unfamiliar with the activities of other occupations, that he sometimes wondered mildly whether he was after all moving in a sphere of real usefulness like other men. The thought disturbed him. *Qui fit, Maecenas?* Ought he not rather to have been a tradesman, or a soldier—*quid enim? concurritur*—or a farmer, or a lawyer, or a grocer, or dry-

goods clerk—in a word, a member of some calling whose duties were clearly defined, whose success could be measured and expressed in mathematical terms, and for which he need offer no apology to the matter-of-fact world about him? If he must be a professor, ought he not to have chosen at least some subject classed as vital or practical or useful—engineering, for example, or agriculture, or domestic science?

But here he was, lecturing on literature—and poetry, at that—which his country's foremost novelist of the realistic school called "soft." He had gone thru the college course with zeal and enthusiasm, and with perfect faith that he was deriving benefit commensurate with the enjoyment he experienced. Not content with that preparation, he had spent two years in graduate work at home, and two years more abroad. He had begun to teach with implicit confidence in his ability to impart knowledge, and in the ability of his students to receive it. He was still young. Yet here he was, full of vigor in the pursuit of a calling which he enjoyed and to which he felt himself adapted, a prey to skepticism, entertaining strange thoughts, which were certainly not angelic, unawares.

Could it be, after all, that his faith had been misplaced—that the value of education was overestimated, and greatly so? He remembered having read the assertion of an English observer to the effect that education was the great national fetish of the United States. He thought of the motley crowd in his own and other institutions with which he was acquainted—of the thousands of aimless young men and women floating along in the current of the college course simply because report had it that education was a good thing; of the thousands more who worked hard first to gain entrance and then to remain, and whose case was hopeless because of natural dullness and deficiency; of the throngs—some stupid and some talented—who were unambitious; of the idlers who came to get culture thru being in the college atmosphere, and whose joys and sorrows were almost all inseparably connected with fraternity and sorority life. All these, he saw, were in college principally because of their own or their parents' partici-

pation in the popular faith in education. There were a few, he felt, more mature and more intelligent, who could no doubt with reasons have answered him; but they were indeed few—for had he not received letters from the brightest of his former students, now teachers, imploring him to supply them with arguments to employ against skeptics and scoffers who were forever asking “What was the use” of literature and language? They had faith, to be sure, but it was a faith for the most part grounded in the fashion of the time. Not one of them had ever really formulated its reasons.

The national faith, too, was fostered by national prosperity. Everybody believed in education of some sort, and nearly everybody could afford it. The roll of college students had doubled and tripled in a half-score of years, but the Professor could not escape the conviction that the number of intended amphoræ which came out pots as the course rolled round had increased beyond all proportion. Yes, he felt inclined to agree with his English friend: education certainly did look like a national fetich.

Well, thought he, better that for a fetich than something less worthy. But the unfortunate thing about it was that, in common with all other fetich-worship, it had a distinctly earthy end in view—as earthy as that of any primitive worship whose devotees bowed down and sacrificed in order either “to avert the wrath or win the favor of deity.” The national faith in education was to be defined as the substance of things hoped for not less than as the evidence of things not seen. Knowledge is power, was its watchword, and its syllogism was: Knowledge is power: power is material gain; therefore, knowledge is material gain. Therefore, get an education, and put money in thy purse: follow thou the college course. Hence the conflict of ideals which poisoned the whole system. Education was desirable because of what it would bring—I say, put money in thy purse,—but it was also undesirable because it deferred realization. Faith said it was a good thing to have, but impatience said ’twere well it were had quickly. Let the process be speedy.

The Professor thought of the haste of young men to enter

into the practise of the professions: of striplings who wanted to practise medicine at the age of twenty-three, or who thought it a waste of time to take the college course antecedent to legal or theological training—as tho the world could afford to trust its property, its body, or its soul to a boy not yet able to comprehend the substance of Milton or Tennyson, to say nothing of appreciating their esthetic qualities. Then he thought of the results—of the hosts of third- and fourth-rate lawyers who never would be first-rate lawyers, not to say Marshalls or Websters; of the physicians who never would be more than mere practitioners, to say nothing of Oliver Wendell Holmeses; of the young men entering upon public life who would never be Gladstones or Hays; of the illogical and ungrammatical preachers he had heard; of the narrow, unenlightened, mechanical teachers he had seen who dealt daily with the greatest products of culture without really knowing what culture was; of the leaders in educational methods who knew culture principally as a machine-made product consisting of so many facts from arithmetic, geometry, and natural science, so many rules of English grammar, so many memorized standard poems, so many familiarized prose masterpieces, and who were always dazed when they met with anything which had not entered into their own particular recipe for education; of the veneered business men and society women he had mingled with among the “best people of the town.” Some of them had rushed thru college with the greatest speed possible, some with the greatest ease possible, and all with the greatest possible attention to such subjects as seemed to them—college faculties no longer presumed to know better than students what was good for them—to have a direct bearing upon their future occupations.

You may know by this that the Professor was in the College of Liberal Arts. Had he been in one of the other colleges of his institution he would have had less cause for despair, for in them he had noticed that ideals were somewhat more nearly realized than in his own. At the commencement exercises a few years before he had heard the Dean of one of them announce that every graduate of his school had a

position awaiting him as soon as he could obtain his diploma and present himself. The Professor had rather expected the heads of other colleges to inform the public, with equal self-satisfaction, that all of their graduates would be occupying lucrative positions behind soda fountains next day, or that the great corporations, the book concerns, the dairies and cheese factories, and the restaurants and hotels of the state, were all waiting in breathless suspense to recruit from their graduates the attorneys, agents, butter and cheese-makers, and chefs and waiters in their employ. He forgave them the omission.

But in his own college the disparity between ideals and actual achievement was so enormous that such moods as the one in which he now labored were not to be wondered at. The aim of his college was to produce a cultured lady or gentleman ready to enter on a chosen calling or course of training with not only a certain amount of definite knowledge, but also with a degree of appreciation and taste, of power of mind, and of sense of method such as would insure their growth into the best of which they were capable, and possibly into the best of their time, or even of all time. They were to be the Shakesperes and Ciceros, the Wagners and Michelangelos and Phidiases of their day, if it was in them, or as far as it was in them; the sordidness of practical problems was not to claim them so soon as to prejudice their possible destiny. They were to have the best, and to do their best. It might be that

"Our best is bad, nor bears thy test ;
Still it should be our very best."

Yet the results were dismaying: the Professor had to recognize the fact every day. Few of his students entertained the ideals he set before them. They, too, to tell the truth, like the other colleges, and partly because of their presence, were after the substance of the world. A great majority of them intended to teach, and prospective teachers, the Professor had found, were after all just as much in a hurry to enter into the world of money-getting as lawyers and engineers. True, they had the advantage of studying cultural subjects while

in preparation for their special calling, and their very choice of profession implied a taste for culture; but that almost made their sin seem greater. The spirit in which they went about their preparation went far toward transforming what should have been general culture into commercial speculation. Recommendations to teach, and positions, were the prizes about which their efforts centered. As for those who were not to enter the profession of teaching, the greater part stood with one foot in the College of Liberal Arts and the other in law, or commerce, or domestic science, or medicine. What few were not in that case were anxious, if not for a short cut, for an easy one.

And all, from Alpha to Omega, had been reared from babyhood in the atmosphere of the struggle for success. The Professor did not pretend to know what kind of instruction they had received in their homes, but he knew well enough the character of sermon and precept they had listened to from the lips of teachers and principals. He himself had heard them from the same source when in school, and again when he was out on tours of inspection. Even yet he had a confused idea that most of the world's rich and successful men had begun in early boyhood on such capital as a single match, a penny, a dead mouse, or nothing at all but hunger and homelessness and an unearthly taste for economy, promptness, politeness, and other unhuman virtues; and he distinctly remembered despairing on various occasions because he did not seem to himself destitute enough to develop into a successful man. He could still see the solemn mien and hear the unctuous tones of the awful figures as they drew the moral from the morning talk or tale: Be punctual, and you will succeed! Be honest and faithful, and you will succeed! Look out for the little things, and you will succeed! It pays to get an education: the educated man succeeds—that is, he gets a good position, is promoted, becomes a partner in the firm, and finally owns the whole concern. Success in every case meant material prosperity:

*O cives, cives, quaerenda pecunia primum est;
Virtus post nummos!*

Common school and high school courses alike had served to confirm them in the idea, and here they were, about to go out and be living examples of it to the next generation.

Was the fault all in method and environment? The Professor's gloomy spirit told him today that it was in the material, too. He indulged in a mathematical calculation. In his department there were six hundred freshmen. They had come from hundreds of high schools and academies scattered over a fertile and growing state. With some show of reason it could be assumed that they represented the best talent of these preparatory schools; and as these in turn could fairly be said to consist of the choicest material from thousands of common schools, it could also be assumed that the Professor and his associates had to do with the picked men and women from scores of thousands of the young people of the state. Every effort to cultivate their powers was put forth, and the process had been going on for years. One might naturally expect, he thought, that so vast and orderly a machine of education might in time, if not beget, at least discover by chance some heart pregnant with celestial fire. That training had failed to produce the great result, he well knew; the most noticeable outcome of the whole process was the inability of the average senior to write a letter which did not transgress the laws of orthography and taste a half-dozen times on a page, even if it contained ideas sufficient to fill so great a space. And as for hearts with celestial fire, and hands to wake to ecstasy the living lyre, out of the thousands who had come and gone within his own memory not one had proved even ordinarily *Musis amicus*.

He had almost given up looking for geniuses. It gave him pleasure now to find students who could comprehend literature, to say nothing of creating it. He thought of the other humanities, too—he had once taught a little Latin and Greek,—of phrases barbarous in sound as well as incomprehensible in meaning, punctuated with groanings which could not be uttered; of whole passages rendered into jargon absolutely devoid of a shred of meaning by pupils who went on with their heartbreaking performance as if they had uttered the

sublime sense which the original was meant to convey. They had spelled her name "Dianna," and called her the god of death, told him that the Centaurs and Chimæras were German tribes conquered by Augustus, called Dolabella the goddess of peace, Aristides the goddess of the "chace," Andromache a Greek hero at Troy, Astyanax an island "somewhere in the Mediterranean," and defined "Soractus" as an intimate friend of Horace to whom he expounded the *carpe diem* idea. According to one of them, *Pilgrim's progress* was "one of the sources of New England history." From a set of about twenty examination papers he had gained the edifying information that Penelope was the Muse of history, the wife of Achilles, the Trojan Helen stolen by Agamemnon, the goddess of wine, mirth, and the like, the mother of Proserpina, one of the Muses who presided over lyric poetry, and "a kind of wine-jar." *Peste!* Much had he travailed in the realms of mud and nails!

Was it worth while after all—all this machinery of education, with its tremendous waste and inferior output? Even supposing its product fairly up to the ideal, what of it? Did education make men live longer? Did it make their digestions better? Did it make them happier than other men or other animals? The Professor lookt down at old Aristides, the pet of the household, sleek, well-fed, and warm, purring contentedly beside the waste-basket. The Professor knew well that he himself felt only rarely as Aristides felt eleven-twelfths of the time. Why not be as the beasts of the field, and live in blissful ignorance of the woes of civilization? Why be civilized anyway? Was not all this fuss about being drest and keeping clean and knowing things merely a notion after all? Why not go as Nature intended, live in a hole in the ground, and eat roots and berries? At any rate, if we must have civilization, why the refinements of civilization? Why poetry? Why painting and sculpture? Why religion, or any other of the useless and impractical and vexatious things for which we struggle all thru our miserable inconsequential little existences? Why education, except for purely utilitarian ends, if at all?

"The time was out of joint. O cursèd spite
That ever he was born to set it right!"

The violence of the Professor's conclusion shocked him into acute and dismaying consciousness of heresy. He called a halt on the thankless Muse—*Quo, Musa, tendis? Desine pervicax*—and bent stern brows upon her: What, no education? Live like beasts of the field? Yes, she replied, just that. What's the use in education? Prove to me that it is a good, if you can. I defy you. Certainly, madame, said the Professor; for now that he had found some one who agreed with him and took for granted the very mud and nails he was contemplating, he began to veer. Certainly. Education makes man a better member of society. That may be true, she persisted, but is society necessary? Why society? You amaze me, answered the Professor. Why, indeed, but to regulate the relations of men to each other, to afford protection to the weak, and to make it possible for every human being to put forth his best effort? Yes, replied the Muse, but Nature regulates the affairs of other beings; why should man be an exception? Why should he alone be against her, and not for her, and do his best to defeat her efforts thru what you call society? She never intended the weak to survive—only the strong and the fit. She intended man simply to live and eat and die. Preposterous! retorted the Professor. What nonsense! What do you mean by Nature? Isn't human compassion as much a product of Nature as human brawn? Isn't intellect as truly a natural product as the appetite of a hog? Do you mean to say that Nature has not reared cities and governments among men as well as grown fur on the backs of beasts? Don't be so narrow! Yes, she replied, scornfully—and charity balls, and evening costume, and predigested food, and undigesting stomachs!

The Professor scrutinized her countenance, not quite sure that she didn't mean that for humor. You see he thought she meant female evening dress, and he had never been able to credit it wholly either to Nature or Art, tho the claim of Nature seemed on the whole slightly superior. Besides, her allusion to the stomach caught his attention—he was dieting

that week under the direction of the *Ladies' home companion*. He had been acting on its various and varying suggestions for some time, and rather enjoyed the adventurous course.

It is no wonder, then, that the Professor lost the thread of his argument for the moment. He began again, however, tho somewhat weakly and irrelevantly: And besides, education makes men happier. The Muse looked suggestively down at Aristides. In much wisdom is much grief; and he that increaseth knowledge increaseth sorrow, she quoted. The Professor knew that, and could not help thinking of the *Companion* and its hints on diet. He, too, resorted to Scripture. Yes, he said, but he lives life more abundantly, and that is surely worth while, for the great Teacher himself came to give us that. He didn't do it by present educational methods, tho, she said, with asperity. To be sure, said the Professor, but—and he was just about to deliver the substance of the last sermon he had heard—the hundred and twelfth on the subject since he had begun to record them—which had attempted to reconcile the practises of modern Christian society with the literal teachings of Christ. But the Muse anticipated him, and urged her point: Come now, she taunted him, where is your logic? You don't seem to be proving that education is a good.

The Professor was getting desperate, and impatient as well. He had never heard such heresy uttered before, had never supposed that education was in need of apologists, and it irritated him to find someone who would not grant him the necessary premises. He had to appeal to a higher court. How do I know it is a good? Why, the course of history proves it. But history may be wrong. Then let it be wrong, said the Professor. My heart tells me that the cultivation of all my faculties is necessary, imperative. My soul thirsteth for it as for the living God. All history shows that the race has the instinct for knowledge divinely planted in it.

The Muse knew there was no use in arguing with a man who spoke with such fervor. She knew even better than a professor that religious convictions are not proper matter for argument; so she determined to concede a point. Well, let us

grant that society, and all that, she said, is necessary, and that education is an ally of society; but what's the use of the higher education which you call culture? If you must have education and schools, why not teach your young people the elements: how to handle tools, cook meals, make clothes, shoot and ride, keep accounts, run railroad trains, and how to teach other generations to do the same? Why aren't you more practical? The Professor was in a glow now. He forgot his former gloom for a moment. Practical! he cried. I maintain that it *is* practical to train up men and women to wide outlook and broad understanding! Oh, that's all very well, rejoined the Muse. But unless your culture has something to do with everyday life and results in something useful, what health is there in it? Come now, let us reason together. Can culture set a leg? or an arm? or take away the grief of a wound? Can the surgeon do his work better knowing *Paradise lost* or Gray's *Elegy* than he could if he had never heard of them? What is culture? a word. What is in that word culture? air. Who hath it? He that died o' Wednesday. Therefore, I'd advise you to have none of it more than is necessary for the feeding and clothing of yourself and your family.

The Professor was indignant now. It's plain to see that you are not Clio, he cried; and I don't believe you are even Zeus-born. You're a modern masquerader. If you had lived in antiquity, or if you knew the first thing about history, you'd never utter such trash as that. Look here: tell me if you can what are the only things which have lasted thru the ages? Are they the bridges built by engineers? There are only two bridges of note mentioned from antiquity—those of Cæsar and Xerxes—and neither would be known were it not for the literary art. (The Professor wasn't sure about the number, but he never did like to let the truth interfere with his rhetoric.) Varro knew a thousand times as many practical and useful facts as Cicero, and wrote them down; but they are lying in cold obstruction because they were not recorded in the language of an artist. Their very existence would be forgotten if pedantry did not occasionally resurrect

notice of them. Do you suppose the fame of our own age two thousand years hence is going to rest upon the achievements of commerce, or the height of our skyscrapers, or the speed of our trains, or the number of our graduates, or the size of our circuses? What does the fame of *past* ages rest upon? You are only earth-born, after all. Go back and ask your nine sisters—elder and wiser than you—whether it was the leather of Cleon the tanner that made Greece famous, or that impractical temple on which Pericles had the state squander its money. Was it the bank account of Crassus or was it Cicero's eloquence that was worth while in the Roman Republic? Don't you know that

" All passes. ART alone
Enduring stays to us ;
The bust out-lasts the throne,—
The Coin, Tiberius " ?

What could you know about the history of the world without the literature, sculpture, painting, and architecture which antiquity left behind, and which men even in the most barbarous age respected for their beauty, hardly knowing why? What would be left of past ages if it were not for their devotion to that same impractical culture which you despise? Don't you understand that only what is practical is perishable, and what is impractical is eternal? The trouble with you is that you are too modern; you've been listening to people whose vision doesn't reach beyond the limits of their own township and their own century. What you need most is a little knowledge of history and a few other impractical subjects. You're narrow and bigoted and short-sighted. Either the whole course of history is wrong and civilization is a farce, or I am right. My way is the way of Nature, after all.

The Muse felt that she couldn't stem that tide. She flew into a passion, flounced out of the room, and left the Professor in possession of the field. I'll not talk with you another single minute, so there! were her parting words. At least you will not find many to agree with you.

Yes, that might be so: he expected to find comparatively

few; but he consoled himself out of his wisdom. There always had been comparatively few. Man might be a thinking animal, but after all the literary animal, even the intellectual animal of any order, was a rare thing, and always had been. He thought of the few—the very few—great names which had survived from among the millions and millions who had trodden the globe and now were numbered with the tribes that slumbered in its bosom. Even in Athens, at a time for fecundity of intellect unexampled in the world's history, there had been only one great man in five thousand. What if his own age produced only one in a million, or none at all? There had been such ages before. The heaven was nevertheless working; the soil was swelling the seed, and some day would come the bursting forth of the embryo, the springing of the plant, the apparition of the beautiful flower. For the flower of civilization was after all only art, and the whole creation groaned and travailed in the effort to produce it.

Then let others insist that the hewing of wood and the drawing of water constituted the only serious and profitable business of life. These things had their place and their use, but for himself, he was about business far more important. Let the world call him and his ideals impractical; it would see only mud and nails where he saw the angels of God ascending and descending. Its slings and arrows mattered not; thrice-armed was he that had his quarrel just. He was ready to scorn "lucrative positions" and live laborious days for the sake of doing what both intuition and reason told him was the supremely worth while.

And so the professor concluded, as he had concluded many times before, and as he had known all along that he would conclude this time, to continue cheerfully on his way with faith that somehow good would be the final goal of ill, and not to go into real estate or life insurance, or open a commercial college.

GRANT SHOWERMAN

II

THE MORAL ASPECT OF INDUSTRIAL EDUCATION ¹

In the last analysis, problems involving equations with human factors lie in the plane of ethics. Economic considerations plead for the creating and multiplying of opportunities for industrial and technical education. Financial advantages are clearly promised to the beneficiaries of such facilities. But beyond these reasons, and more weighty than they, are the moral effects sure to accrue to individual and society from the scheme. Even should the ethical possibilities and moral potentialities of industrial education be esteemed merely as a by-product, the experience of manufacturers should suggest to us its extreme value. In almost all branches of industry, by-products represent the profits. Were it not for them and had manufacturers not learned to turn them into commercial assets, many an enterprise would have to be abandoned as unprofitable, the main product in many lines scarcely netting enough to balance the expense account.

The system now in vogue in our schools can not be said to have been very noted for its moral results. Of this fact, educators and others have no reason to be in doubt. The cry has been going up from many quarters that with whatever intellectual equipment our adolescents may come forth from the common schools, somehow or other they do not carry away from the schoolrooms devotion and fidelity to well-grounded moral principles. Unanimous as is this verdict, even so various have been the propositions looking to the remedying of this sad defect. Industrial education will go far to bring about the wisht-for consummation. And this for reasons not far to seek.

¹ An address before the National Convention to Promote Industrial Education, held at Chicago, January 24, 1908.

Let us not forget that education to be education must in the first place be explorative. The ethical no less than the religious viewpoint of life and man flowers in the conviction that in the "universal plan" each human life is incarnation of a purpose. Each individual in whom humanity comes to differentiated personality is meant to fill one definite place in the economy of society. For what task the individual be gifted and therefore intended, this to discover is the aim of a well-devised scheme of education.

This has been lost sight of, if not entirely, yet to a very great extent by the framers of the ordinary school curriculum. Information, transmission of knowledge, is in the foreground of their pedagogical solicitude. In the program, primarily those intellectual acquirements are emphasized which facilitate the intercourse between man and man:—Reading and writing and arithmetic. The scope is enlarged somewhat by provisions for intellectual culture. But even in them stress is laid on the imparting and acquiring of information. The appeal is to the head; only incidentally, scarce ever systematically, to the heart. The hand till very recently was neglected altogether.

The dogmatic presumption of this pedagogical creed seems to have been that all normal men without exception are destined to be head workers. The Shibboleth had it that knowledge is power, but that knowledge was narrowed in this conception to book learning. The system rendered good service for those that by talent, predisposition, and circumstance were foreordained to find their place in life in those avocations for which a certain intellectual dexterity was prerequisite. The unnumbered others it sent to their fate without as much as suspecting or leading them to suspect that the service which they were meant to render society lay in other walks of life. For artist and artisan-to-be the school that offered some help to the future clerk or the aspirant for the liberal professions, did next to nothing. Practically the schools have been trade schools for the bookkeeper and the salesman.

In consequence, the school failed to arouse and to retain the interest of all those pupils whose talent and natural abilities

predestined them for a different career. With interest at low ebb, infractions of school discipline naturally and unavoidably multiplied. Reluctance to go to school soon developed into habitual truancy. And truancy is the first step to delinquency, which, if not rationally treated, that is to say, by such methods as the school ought to have invoked before the appearance of the perilous inclination and the development of habit, is bound to grow into incorrigible criminality. The school statistics furnish a corroborating commentary on the soundness of this observation.

The remedy lies in manual training systematically made an integral part of the common school course. Even for those that are predestined to intellectual work, manual training will be of immeasurable moral benefit. It satisfies the natural impulse, congenital or innate in man, to create and to do. Activity and creation evoke gratification and the consciousness of self-dependence. Creative processes illustrate inflexibly the law of righteousness. As the worker plans, so will be the outcome. Incorrect planning will be revealed inexorably in the faulty results. Slovenly, careless, or dishonest work will be disclosed in the product. The fundamental lessons of all morality will thus be brought home to every child at the bench and the anvil. Moreover, the sense of responsibility for one's work will thereby be deepened. Pride in what he produces will take hold of the pupil. Both of these factors go far in the molding of character. Better and infinitely more impressive this practical illustration than the memorizing of the maxim illustrated, that as we sow, so shall we reap.

But what about those that are not called to serve their fellows in capacities where fluency and correctness of speech or ease of pen and quickness at figures are prerequisite? Manual training will captivate their interest. It will attract them to and retain them in the school. Delinquencies as due to truancy will be minimized. These youths will be led to discover themselves, and in addition to the moral benefits in character building, which creative work of this kind never fails to confer, they will carry forth from this preparatory

training a confirmed love for work and at the same time a clear enough apprehension of the kind of work for which they are best fitted.

And this is the point of which none should lose sight. Much, perhaps most of the moral decrepitude which our day has good cause to deplore, is due to the sad truth that most boys and girls are permitted to grow up without the faintest effort to discover for what occupation they are gifted. Most adolescents drift into active life, and drifting, become "misfits," wrecks. In the painful school of experience and failure, some are brought to find themselves; but at what cost! Most are submerged. Thousands, having no joy in what they are doing, stray from the path of rectitude. Crime and vice are as often the result of inadequate preparation for life's activities as they are symptoms of abnormalities transmitted in birth. Intemperance certainly is frequently the shadow of dissatisfaction. "Misfits" furnish the greatest number of recruits to the sorry army of drunkards.

But manual training, as long as it is intended to be explorative, is only preliminary. Its aim then is pedagogical and its value cultural. Industrial education is of larger scope. Wise legislation has in recent decades placed restrictions on the exploitation of child labor. As long as schools fail to interest so many boys with a natural bent for manual occupation, the problem always remains what to do with these during the critical years during which the state, in this instance certainly the majestic organ of a righteous social conscience, bars them from the factory and the counting-room. Shall they go to the streets? Or to the reformatory or preventive, but always quasi-penal, institutions now open for them? God forefend! For them, we need trade schools, technical secondary schools, in which the skill acquired and the talent pedagogically discovered in the preparatory manual training shall be further fostered and brought to full fruition. The old apprentice system has past away. The haphazard opportunity to learn a trick or two offered by the factory is a very inadequate substitute for such instruction as, in the days of industry's more patriarchal organization, the master

imparted. Whatever may be the economic necessities that urge the establishing of trade and technical schools, the moral welfare of the future worker himself pleads still more loudly for this new departure from the self-complacent methods now in vogue. Industry has specialized to an extent the contemplation of which will bring on in a thoughtful mind an attack of vertigo. The factory in consequence dwarfs the man. It makes him a hand, and that, too, in a sense most disheartening. His work is monotonous repetition of one and the same trick. He is kept glued at his place busy with a part of a part, never gaining sight of or insight in the whole of the finished product. There is no joy in his work. It is not creative. And what moral value joy in work represents, Ruskin and William Morris ought to have made us understand!

Little or no preparation is required for becoming one of a gang or shift in the factory. Until social conditions will outgrow the factory stage,—and electricity holds out the promise that the factory, the child of steam, will pass away,—necessity will impress many into factory-toil. But let these carry into the monotony and soul-consuming drudgery of their life at least the memory of days when they tasted the joy which the artisan of medieval times prized as the highest, of being a creator. Trade schools alone will subserve this end. The moral character of the wage-earners will be potentialized to higher and nobler self-consciousness by a thoro professional schooling.

The trade school, however, will save many from seeking refuge in the factory. It will bless America once more with skilled and intelligent laborers. It is bound to develop new specialized activities. It and it alone will foster once more that sense of honor and pride in the vocation which the old guilds in Europe cultivated so zealously and guarded most jealously. No prince was prouder of his rank and more intent upon keeping his escutcheon bright and unspotted than were journeyman and master artisan. Such delicate sense of honor is a moral asset which individual and society can ill afford to dissipate.

It is no secret among psychologists and moralists that power to do and knowledge to do well will always engender readiness and willingness to do and to do well. If the categorical imperative of duty sounds its implacable "Thou shalt," competency to do is the surest incentive to bring forth the joyful response: "I shall because I can." The German poet who assures us that man grows correspondingly with his higher purposes, phrases a significant truth applicable also to the subject in hand. The worker will grow to fuller manhood in measure as he acquires fuller and more thoro knowledge of his craft.

This fuller knowledge will increase his efficiency and productivity. This increase will enable industry to shorten the hours of work. Respite from toil will offer opportunity for better discharge of duty as father, as citizen. Family life will profit thereby, the state will win a new advantage.

Industrial education will uplift women as well as men. Incompetency in domestic occupations is the fruitful source of domestic misery, which, in turn, leads to intemperance and worse. Train the future wives and mothers for their "calling" and unspeakable ills now sapping the vitality of the nation will disappear as if by charm. Who will gainsay that inadequate preparation for a definite industrial occupation has been the most fatal cause of woman's enslaving?

The old Rabbis knew of what they spake, when they said: "He who rears his son without having him learn a trade brings him up to be the associate of thieves." The utilities may prove the economic profitableness of the cause which has brought us together. In the sacred name of the humanities rooted in morality, I raise my voice for the enlarging and revitalizing of our school programs. Head, heart, and hand are the trinity which it is the school's to develop harmoniously. Give them also a chance that would serve humanity with their hands. The hand more effectively than the head it is that brings the heart to the realization of the sweetness, the sacredness of a life devoted to high duty and ennobling service.

EMIL G. HIRSCH

III

GERMAN AND ENGLISH SECONDARY SCHOOLS COMPARED

That no part of the educational system of a country is so important for the intelligence, efficiency, and well-being of that country as what is generally known as secondary education, is coming to be more and more recognized. In the secondary schools are found the young people who will become the leading element of the future population. The training which they receive is usually not yet narrowed by vocational aims, and so is distinctly cultural. And the time of life covered—the four to nine years immediately preceding the age of eighteen or nineteen—is peculiarly susceptible to the wider outlook upon truth and life that comes to the youth as he passes beyond the elementary stage of education. And it is significant that those nations that are wisest in their educational policy place men of the highest character and ability at the head of their schools of this grade. Germany's directors of gymnasia are invariably exceptional men who reached their positions after long years of successful service as educators. Practically the highest scholastic position in England is that of head-master of Eton College, and it is claimed that Arnold, the maker of Rugby, would have made a successful prime minister.

No nation can with good results slavishly copy the educational system of another nation. Each nation has its own peculiar spirit and aims to which its educational system must be adapted and of which it is largely an outgrowth. On the other hand, there are also elements in every educational system that are of general worth, and therefore the systems that have been most successful should be sought out and studied regardless of national distinctions. It is for this reason that a comparative study of the two types of secondary

schools, that for many generations have stood out most prominently in the educational world, namely, the German gymnasia and the great English "public schools," is important at this time when people are looking to education as never before as a means of national efficiency and well-being.

England has been far behind Germany in the matter of secondary education. In Germany a gymnasium or other school of that grade has been locally within reach of the great majority of boys for a whole century. In England the same condition has prevailed for little more than a decade. The difference has shown itself in the superior intelligence as a nation which Germany can, beyond a doubt, at present claim. But the best of English secondary schools, namely, schools of the type of Winchester, Eton, and Rugby, are not only as old as the oldest of German gymnasia, but their work has been such as to give them a great place in English history. The comparison that is to follow will be between these foremost English schools and the German gymnasia, which latter still stand as typical of the best in German secondary education, altho the *real* gymnasia and the higher *real* schools have been ranked by the government as equal to the gymnasia.

What immediately claims the attention of a student of the two types of schools is the many points of contrast between them.

The secondary schools of Germany are completely under government control. They may be supported by a city or a district, but in all respects they must conform to the government pattern. The qualifications of teachers, the form of organization, and the course of instruction are all carefully regulated by government action. The consequence is almost absolute uniformity. There are slight variations, especially in southern Germany, but, generally speaking, when the observer has seen one German gymnasium, he has seen them all. This arrangement makes the institution of reforms easy. Both in 1890 and in 1900 reforms of the most far-reaching character were inaugurated by the simple device of an imperial rescript. In England, on the other hand, the great secondary schools are practically a law to themselves. Cer-

tain goals to be reached by the graduates, mainly the passing of examinations for the universities, for civil service, or for the army and navy, make the teaching of certain subjects necessary, but beyond this practically no government action affects these schools. A board of controllers who constitute an independent corporation elect the head-master, to whom they give almost a free hand in the selection of teachers and the organization and administration of the school. The forces that are most potent in their influence upon him are the traditions of the school and the criticisms of the public. No reforms that might be deemed desirable by the Board of Education in London could be enforced upon the schools, and reforms at best come very gradually, for there is no great country where tradition has such a strong hold as in England.

All the German gymnasia except two are day-schools. The schools that have even a little accommodation for boarders are the exception. The circumstances that make boarding-houses necessary anywhere are deprecated. In England, on the contrary, most of the great secondary schools are boarding-schools. This is the result not of necessity, but of choice. The majority of the best families in England believe that it is better for their sons to spend two-thirds of their time for the six years immediately preceding the ages of eighteen and nineteen in a boarding-school than to be in the home. The corporate life of the school is believed to offer advantages for discipline and the development of character which the home can not give. This implies what is actually the case: namely, that the out-of-school hours of a boy's school-life are considered very important and receive a very large share of attention from head-master and teachers. In fact, it is scarcely an exaggeration to say that the life of the pupil on the playground, around the common dining-table, in the house of residence, and in the chapel receive more attention than his lessons.

Again, in a German gymnasium there is no recognition of the pupils as a governing factor. The school is a monarchy, the function of the director with his teachers being to command, and that of the pupils to obey. The principle of au-

thority is emphasized for the one side, that of patient, unquestioning obedience on the other. The idea of developing in the students of the higher classes a sense of responsibility by intrusting them with some degree of authority over their younger mates, would be entirely foreign to the prevailing spirit. Here again the contrast with English schools is striking. While the life of an English school is less of a democracy than would be the case in America, for example, the constant contact between teacher and student outside of school hours goes far to bridge the gulf between ruler and ruled, to make the relations friendly, and to constitute the monastic life of the school a real community in which the rights of all receive due consideration. Athletics, games, debates, and the school magazine are almost wholly managed by the students themselves. But the great distinguishing feature of the government of an English school is the position given to the students of the sixth, that is, the highest, class—a feature introduced by Arnold and now adopted in one form or another by all the public schools. It is a system that puts upon the students of the highest class the responsibility for the enforcement of practically all the rules of the school. Of course, the head-master and the teachers stand behind the governing students and hold frequent consultations with them, but the immediate enforcement of the regulations both in school, on the playground, and in the residences, is committed to the students of the sixth form. The head-master of one of the great schools was recently asked upon what he relied most for the development of character. He replied, "Upon the arrangement of giving authority to students of the sixth form."

Another contrast lies in the training of teachers. The German system of training teachers for secondary schools challenges the utmost admiration. A man must have spent three years in a university,¹ must have taken one year either in the university or afterwards, in theoretical and practical pedagogy, and must have spent one year additional as a trial teacher, before he can be regularly appointed as a teacher in a secondary school. Consequently he is uniformly a man of high

¹ There is no undergraduate or college work done in a German university. It is all post-graduate or professional work.

scholastic attainments coupled with fine technical skill, and everywhere his classroom work bears eloquent testimony to the excellence of his preparation. Excepting that the teachers of the English secondary schools are also men of high scholastic attainments, almost the exact reverse can be said of the English situation in every particular. There is no specific provision worthy of the name for the training of secondary school teachers, and the kind of classroom work done gives unmistakable evidence of this lack.

The German method of teaching lays chief stress upon classroom work. The instruction comes to the pupil first from the lips of the teacher. With textbooks put aside the pupils sit before the teacher engaged in an exercise of recalling previous instruction, drawing inferences, and memorizing new material, that keeps their mental powers in a state of the utmost tension from the beginning to the end of the recitation. Even the taking of notes is discouraged. In fact, there is no time for this amid the brilliant mental gymnastics that is going on. In all the world there is probably nothing like this German method for training the attention, the memory, and the power of rapid reasoning all around a subject. Textbooks for the most part are for use merely as helps in reviewing at home the lesson that has been taught, and the time given to home work is usually only about half of the time occupied by classroom work.² In England the boy meets with his new lesson first in his textbook. A certain portion of the book is assigned him for preparation, and a leading purpose of the recitation is to ascertain with what degree of faithfulness he has performed his duty and to give him credit accordingly. In the classroom the power of attention and the reasoning faculty are as a rule not called into active exercise, and all that is so splendidly brought out by the drill of the German classroom can only be brought out in the case of the English boy by that boy's own diligence and ambition.

As for examinations during the school course, and also prizes, scholarships, and exhibitions, and the intense competi-

² There are five hours of recitation daily in regular branches, six days in the week. There is no time for preparation of lessons during school hours.

tion engendered thereby, they play almost no rôle in the life of a German school. In some cases there are a few stipends to be obtained by needy students thru faithful work, but that is all. It is simply a provision to give poor but promising boys a chance. But in the English secondary schools all these things occupy an amazingly large place. There are first the regular examinations. Then there are the contests for scholarships and prizes within the school, and for scholarships and exhibitions in the universities. The motive in working for these scholarships and prizes is not so much the financial help which they afford as the distinction which they confer. Consequently there is at present the constant temptation to degrade study to a mere means of passing examinations and winning prizes, and to resort to vigorous cramming as the time for the examination draws near. Present-day criticism of the public is sharper at this point than at any other.

The German system is inflexible. When a boy begins the first year of a gymnasium course he has nine years of study before him, no matter what his diligence or ability may be. No exceptions are made. On the other hand, when a boy enters an English public school he may take the full six years allowed for the completion of the nine "forms"; or, he may by faithful application reduce the time to five or even four years. Moreover, boys may be ahead of their form in certain subjects and behind it in others. Large room is given for the play of differences in diligence or individual ability and taste.

The subject of athletics is also one that offers a striking point of contrast between the two types of schools. In Germany physical exercise has until recently been almost entirely limited to the several hours per week of required lessons in gymnastics. These lessons are usually well adapted to the symmetrical development of the body, but they afford little of the health-giving exhilaration of field sports. There is, indeed, a movement, in which the reform gymnasia lead off, and which is encouraged by the Crown Prince himself, looking toward the extensive introduction into the secondary schools of manly sports. However, things are as yet only

in their beginnings. But in England! Here cricket and football occupy the chief part of many a boy's interest, energy, and thought. Athletics is compulsory. Every boy, unless excused thru request of physician or parent, must answer to roll-call for athletics as well as for lessons. The whole school is organized into a graded system which admits of free promotion for progress. The plan of having boys live in different houses to the number of about fifty in each, lends itself to inter-house rivalry. The excitement often is intense, and the boy who reaches the top frequently is a bigger man in the eyes of the boys than the head-master himself. Such is the extent to which this feature of English school-life has grown. There are many fine features about it. The games are usually played in the most excellent spirit. The vanquished seem to come out of the game as happy as the victors. There is no roughness or ungentlemanliness. It is splendid physical exercise, an outlet for surplus energy, and a preventive of vice. Yet there are those who are gravely considering whether athletics is not occupying too much of a student's time and introducing too large an element of play into English life.

The subject of religion in the German schools occupies an important place in the curriculum of instruction, but only once a week is there a religious service, held in the school "aula," or assembly hall, and this with military brevity. In England there is also instruction in religion, but that upon which by far the chief stress is laid is the services and prayers in the school chapel. In fact, it may be said that the chapel is the heart of an English public school, something which is credible after one has observed the heartiness with which five hundred boys participate in the services, frequent and long-drawn-out tho they are. The chapel is usually a place also where excellent sermons specially adapted to young men are preached, and where the most sacred memories of the school center. The tombs of former head-masters are found beneath its floors, and statues and memorial tablets are placed upon the walls recording the achievements of former pupils who ended their lives in faithful, heroic service. In addition to the chapel services and the regular religious instruction, the

house-masters and the head-master use the time previous to confirmation to make personal application of religious truth to the needs of each student.

Lastly, there is a contrast in the hold upon the affections which the two types of schools secure. A German gymnasium is usually in the heart of a town or city. The buildings are architecturally uninteresting. The grounds which surround them are as a rule only large enough for the regular gymnastic drill and a botanical garden. Within the buildings there is seldom anything to be found that does not serve the direct purposes of instruction. An outsider is impressed with the dreariness and tedium that seem inevitable to nine years of a boy's life spent amid such surroundings. Of an English school the two most characteristic features are its classic architecture and its extensive grounds. Think of those halls and arches of Winchester dating back to the 14th century! Think of the meadows of Eton! Their ancient halls hallowed by the footsteps and knife-marks of many past generations, their interiors adorned with the portraits and statues of former students who achieved name and fame, their exteriors encased about buttress, window, and tower with the perennial ivy, their vast stretches of play-field a perfect green, shut in with wall and shrubbery and guarded by gigantic elms, these old English schools possess an environment for the unfolding period of youth that is of inestimable value.

Besides these contrasts there are less pronounced differences that deserve passing notice. Both types of schools have had to meet the problem of opposition to the study of the ancient languages, and both have yielded somewhat to the demands of the times, the English a little less than the German. But the English schools have made the change by adding to their regular classical course two other courses, one called the Modern Side and the other the Army Side, all being under the same organization. The German spirit has forbidden this mingling of courses and has kept the gymnasium pure and separate, while recognition has been given to modern demands by establishing other kinds of schools, namely, the *real*-gymnasias and the higher *real*-schools. It should be added,

however, that both the classical courses in the English schools and the regular humanistic gymnasia of Germany have themselves undergone modification in deference to the demands of the age.

Both of these two great types of schools stand firmly opposed to selfish and short-sighted utilitarianism, and strive devotedly to keep alive and strengthen the ideal side of the life of the youths intrusted to their care. However, there is a certain *Zweckmaessigkeit*, a close, scientific adaptation of means to ends in the German, that is not found in the English schools, and that makes the former the more efficient agencies of civilization; while, on the other hand, the English schools work with the aid of an inspiration flowing from their traditions and their environments that the German schools do not possess.

Where contrasts and differences are so manifold, the advantages being now on one side and now on the other, a choice is not easy. It is evident that neither type, even in its main outlines, commends itself for unqualified imitation. Yet an attempt to arrive at a conclusion more or less favorable to one type or the other may be of some value for the shaping of educational aims and ideals in other countries. No doubt the best method of testing an institution is by its results. "Ye shall know them by their fruits." What are the fruits thus far produced by these two kinds of famous schools? For the German gymnasia it must at once be said that they are the more efficient. They instruct and discipline with a high degree of success a larger army of men than do the English schools. And this, in view of the growing intensity of international competition, is a point of great importance. For the English schools it is claimed that, while less successful in producing scholars, they are more successful in producing men. There is much to substantiate this claim. Their method is favorable to producing such a result. In the English school the gifted and ambitious boy is given a chance to push ahead. To spur him on he is surrounded not only by a cloud of noble witnesses of the past, but also by a group of keen competitors ever ready to snatch

from him the coveted laurels, altho in this race many fall and faint by the way. Already in school he is trained in the leadership of others, and he goes forth to the severer contests of practical life equipped as his German cousin is not. The result itself seems to be what the method would lead one to expect. England's history is exceptionally rich in men of towering greatness. Her poets, statesmen, and warriors form a noble galaxy. In nearly all great world-movements her sons have been the pioneers. We all remember the saying of Wellington that Waterloo was won on the fields of Eton, and the more one learns of the English schools the more one is inclined to believe it.

If we adopt the creed, then, that manhood is above scholarship, our conclusion is in sight. We must give preference to the English schools. As soon as this is said, however, we must make haste to separate the kernel from the husk in the English system. The five things which in the English system seem most essential to the results that have been achieved are, the corporate life of the schools, a form of organization that fosters the spirit both of obedience and responsibility, the high type of men that are called to the positions of head-master and teacher,³ environments that are pre-eminently calculated to inspire noble purposes and lofty ideals, and such emphasis on physical exercise as seems to succeed in furnishing the healthiest basis for a sound mind and a clean life. These essential features of the English method of secondary education undoubtedly constitute one of the greatest object lessons in the history of education.

At the same time it is a grave question whether the English system must not very soon undergo extensive reforms, mostly according to German models, if it is to retain its position of prestige, and enable the English nation to retain her position of prestige in the keen competition of the world. The teaching force must add to its present qualifications a thoro technical training. The quality of the classroom work must be so modified and improved as to increase greatly the amount of mental attainment and discipline. The perverting influence

³ Three of Rugby's head-masters have become archbishops of Canterbury.

of over-emphasis on examinations and prizes must be corrected, and something like Nelson's "England expects every man to do his duty" substituted as a stimulus to exertion. Athletics must be reduced to just enough to insure the healthiest flow of intellectual life. The whole work must become more serious and more closely adapted to definite ends.

Perhaps the most difficult question for any who desire to learn from the English way is, whether the boarding-school plan is essential. The head-master of one of the great schools recently said that, while formerly he was an uncompromising advocate of the boarding-school, his experience had taught him that where the homes are good, day-schools may be as successful as boarding-schools in the molding of character. However, a day-school where even only a majority of the homes intelligently and efficiently coöperate with the schools is a rare phenomenon, and while it is neither possible nor desirable that all secondary schools in any country should be boarding-schools, it does seem wise that there should be everywhere a certain number of such schools, and, if possible, that they be private, rather than state or municipal, institutions. It is precisely in this kind of schools that the highest educational ideals can be carried out in the most untrammelled and successful way, that a corporate life can be formed, and that inspiring traditions can accumulate. Rather than endow much further the great universities in America it were wise for public-spirited men to place upon an enduring basis such great academies as are Phillips Exeter and Mercersburg, and many others that could be named, or to establish new ones. These schools have the possibility of becoming the best nurseries for the manhood of the nation. From them may go forth influences also that will mold the life of the day-schools of secondary grade, as is the case in England now, and enable these to impart a culture and an inspiration that now in most cases they can not give.

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IV

THE INTELLECTUAL REACTIONS OF CO-EDUCATION ¹

The meetings which you inaugurate this evening appear to me like a succession of carefully-planned attacks upon opinions and prejudices which, if your earnest enthusiasm prevails, must soon become shadows of the past. You have certainly advanced beyond the primitive notion of war as a series of disconnected single combats. In your strategic scheme my duty, I take it, is simply to carry out the first operations of the investing army.

At a critical period when the methods of our common schools are called into question, when some of our most prominent thinkers deny that we are giving that genuine equality of opportunity which our educational system should furnish, the question may profitably be raised, how can we aid women in the effort to liberate their education from some of its present disadvantages? Wherever in recent years there has been carried on a discussion on the rights of women to enjoy the highest educational opportunity, the term co-education seems indissolubly linked with the principle that is involved. The very compactness of the term has made it a watch-word, a battle cry; it stands for an issue, a privilege, a triumph; to the average mind it proclaims equal rights, equal opportunities, equal obligations in education, participation with those of the male sex in the work of school and college on terms of absolute identity. It is impossible for me to share this enthusiasm. What I propose to set before you are conclusions based on an experience of many years in the teaching of boys and girls. It will be a plain straightforward narrative,

¹ Address delivered before the Social Education Conference in Boston, March 6, 1908.

it will leave to others the more grateful task of the higher appeal.

The scheme of co-education afforded at the outset a convenient basis of comparison of intellectual capacities, and in consequence people were led to overlook its primarily utilitarian function. There was assigned to co-education a social and political significance that is in fact alien to it. The fundamental considerations that underlie are of a purely economic character. Now there is nothing discreditable in this; why, then, in the endeavor to establish its superiority over segregated educational courses, attach to it a moral principle which is by no means of its essence? Co-education is the first, the most obvious, the cheapest way of satisfying the just demands of women that they be given every intellectual opportunity they crave for.

Suppose it were definitely shown that co-education were a more expensive scheme than separate school organizations, would its advantages still be as forcibly urged, because of the ethical and social presumptions which commend it, because of its influence on the quality and content of instruction, because of its efficacy as a preferable means of discipline? It is now admitted beyond cavil that where in school and college the two sexes compete in identical work, the women have maintained themselves creditably in almost every line of intellectual effort, have in various departments surpassed the male students. But the same conclusions might have been reached, have in fact been reached, on the basis of parallel courses for the sexes individually.

For at least a generation the women themselves have welcomed co-education as a test of comparative ability; they demand of the educational authorities nothing more than the privilege of participation in identical work on equal terms, and our commonwealths afforded the privilege that involved no additional cost. Women have been ingeniously encouraged in the belief that identity of intellectual effort was best; it has helped to postpone consideration of the question agitating us at present: does co-education furnish the *best* means of advancing the intellectual welfare of women? Is it best for

them to duplicate the effort and pursuits of young men when other subjects for which they are particularly fitted are still ignored?

We are becoming uncertain, are we not, of the efficacy of our various courses for young men? The time-honored college subjects, well intrenched in tradition and in themselves admirable, are assumed to be less serviceable to this or that type of young man in his preparation for the problems of the larger world. Here is a vast battle-ground of diverse opinions, where hopes and anticipations rather than evidence and judgment mark the progress of the conflict. In this struggle our girl students are dragged along into the fray, for better or for worse. If methods are changed, if emphasis is displaced, they too share in it, for they must keep up with the shifting trend in men's education.

In this condition of affairs does it not seem as tho the women's colleges, our Eastern women's colleges, enjoyed a rare opportunity? They surely were free to differentiate, they might foster the special aptitudes of women, but no, they are with scarcely an exception as co-educational in spirit as any Western State university, except for the physical presence of young men. They insist on identity of method in the several subjects, never once asking themselves whether these methods are in themselves commendable, effective; they duplicate all the shortcomings of the collegiate instruction for men; if they err, so do the men's colleges. It is the old tale that repeats itself here: in the struggle for a new possession a bauble seems as precious as a jewel. Unfettered by the traditions of the men's colleges, might they not have signalized the advent of a new era by meeting boldly the question, what forms of education are appropriate for the leadership of women which men can not as effectively master?

Speaking from personal knowledge, I am sure that the need of great modifications in the present college courses of women is fully realized in more than one instance, but each individual head of a college seems reluctant to incur the odium that at first attaches to a radical change of front. The change, however, will come; there will be a recasting of the scheme of studies,

so that the educated woman can bring to bear her scholarship, her insight, her inborn possession of taste and tact on provinces of the social life in which men will always be tyros. Is it not passing strange that *men* must point out what contributions to the welfare, the happiness, the sense of beauty of the human race the cultured woman may make in the various fields of domestic economy, domestic science, and art? Is it less dignified for women to bring their trained minds to the service of their less fortunate sisters than for men to contribute study and sympathy to the development of scientific philanthropy?

How loosely, after all, to come back to our main question, do we employ certain popular terms! Is it *co-education* that the champions of the issue really have in mind? In his decennial report to the Chicago University, President Harper pointed out clearly the proper limitations of the term. School and college can afford co-instruction, not co-education; within the limited number of hours in which the two sexes appear jointly in classes before the same body of teachers the vast possibilities of co-education which its advocates urge, the social and ethical connotations they would attach to it, can not be developed. It is frankly incomplete when it does not control the full life of the student-body in and out of school and college. We encounter less at the present day than formerly the plea of the refining influence that the girl student exercises upon the boy student; it has lost much of its glamour. Is not this influence quite as frequently as not a matter of outward courtesy, superficial rather than intensive? But even were it true, are not we sacrificing the welfare of our girls if we offset obvious disadvantages in their course by the influence they are capable of exerting on their male associates in study?

We are not likely often to get distinct admissions from within co-educational institutions that the promiscuous student-body sometimes falls quite short of ideal conditions. There must be grave occasion for doubt when the president of a co-educational university, like Chancellor Van Hise of Wisconsin, points out a serious menace in the presence of many young men and women in colleges like his, who have no serious pur-

pose, who attend to win social prestige; there is a tendency, he says, among the women to regard as successful the one who is attractive to the young men; social availability is regarded by many young women as the basis of a successful college career, rather than intellectual leadership. With the changing constituencies of our colleges there lie here distinct dangers: distraction, lack of decision, uncertainty in educational policy, in class management. These are some of the intellectual reactions of co-education.

Stanley Hall's dictum "that neither of the two sexes should be a final model for the imitation of the other" finds curious confirmation in another aspect that many of the co-educational institutions reveal. There has developed in various courses a differentiation that in its consequences is becoming serious. Wherever the elective system permits, the young men are withdrawing from courses which are the favorite choice of the girls, the literary courses; the male students discard them as feminized, they turn by preference to subjects in which esthetic discrimination plays no part. Here is outright segregation, voluntary segregation, injurious to the cultural welfare of our young men; they certainly can ill afford to ignore the influences that good literature-teaching brings into their lives. There is a possibility, says Chancellor Van Hise again, that some of the colleges of liberal arts in the State Universities may in large measure cease to be co-educational by becoming essentially women's colleges. Here is again an intellectual reaction, proceeding from co-education, hardly, however, one that would be urged in its favor. Is it *because* of the presence of the young men in their classes that girls take more kindly to science, think more closely, reason more accurately, or is it because they experience teaching that stimulates to accuracy, to precision in thought and expression? The right kind of teaching attains the same results, when girls alone form the group.

Whilst the dispute has been raging hotly in the sphere of college education, our people have been inclined to accept co-education as a satisfactory instrument in our high and secondary schools; despite its outward successes co-education has

not established its case in the secondary school. I believe that its prevalence in high schools has proved distinctly harmful to both sexes. Of its injurious effects upon our growing boys there can be little doubt; they do not accomplish what they should be capable of doing; even in the attenuated demand of our present secondary school system, with its lack of stimulus to real energetic attainment, they fall distinctly short, whilst the girls who should enjoy special care and consideration at this critical stage in their vital progress are in constant danger of impairing their physical condition because of their eagerness and ambition. Our secondary school boy does not utilize his full intellectual capacity in the direction of sustained effort; he substitutes the strenuousness of the athletic field for vigorous mental application.

If then we have been propagating a school policy which is not ideal for the girls, and which works permanent disadvantage to the boys, the logic of the situation demands that it give way to a better arrangement. In one of his masterly reports for the remodeling of English secondary education, in the report for Essex (page 35), Sir Michael Sadler, a most sympathetic student of our institutions, speaks thus of the results of his inquiry into co-education in America: "I can not say that I have been convinced that either as regards boys or girls (and especially as regards girls) the system as actually at work is as good for the majority of the pupils as the best that is possible in separate schools." And again, when proposing the creation of a new secondary school at Duffield in Derbyshire, he says (page 78): "It seems desirable to establish a school which would develop a kind of educational influence more closely related to the actual needs of girls than with all its different merits a co-educational school can ever furnish. It would be a misfortune for the county to forego the educational advantage of having a number of secondary schools, the curriculums and methods of which were specifically designed to meet the needs of girls." And *I* would add: adolescence is above all a period of differentiation which must be respected; we are in a fool's paradise if we believe that we can eliminate differences by pretending to ignore them.

I have referred briefly to the physical strain upon the girls; the secondary school course and the college course are not based in a co-educational institution upon physiological considerations in which the welfare of the two sexes has been adequately studied; they are *de facto* boys' courses which girls are tempted or coerced to take. The number of years in which boys *can* accomplish a given amount of work has determined the rate of progress, and the girls are expected to maintain the same pace as the young men. There have been prepared pseudo-statistics of all kinds to prove that the health of girls has not suffered under the strain of this competitive work, that college women too are healthier than the average woman, etc., etc. To such statistics absolutely no value attaches. They are based upon unscientific records, upon personal impression, upon partisan predilections. Sheer intellectuality has robbed some women of the capacity to estimate the attendant dangers; theory overrides obvious points of differentiation.

The Supreme Court of the land has proclaimed within the last ten days the principle that the interest of the human race, of posterity, demands recognition of this fundamental difference. The two sexes differ, says Justice Brewer, in structure of body, in the functions to be performed by each, in the amount of physical strength, in the capacity for long-continued labor, in the influence of vigorous health upon the future well-being of the race. There is but one body of people whose expert judgment in such a matter as the effect of strain is of any value, the scientifically trained physicians. *They* can gather the data and can give us unbiased conclusions. The *ex parte* testimony of *alumnæ* can be dismissed summarily. In the International Congress for School Hygiene, held a few years ago at Nürnberg, two famous professors and physicians, both of them from countries that have tried co-education in a number of their schools, Denmark and Finland, reported on this subject. Professor Hertel deems co-education only possible if, in the course of study and in the number of school years, consideration be taken for the rapid change of development in girls. He elaborates statistically that the tendency to disease, especially to anemia and nervous diseases, among girls at the age of thir-

teen amounts to fifty per cent. as against thirty-one per cent. with boys. He insists that if girls are to have the same studies in the same classes as boys, they should have an additional year allotted, remain two years in one class; that the course of study should consider not merely the physiologic and hygienic peculiarities of boys, but of both sexes. And Professor Palmberg condemns co-education because of the insidious influence of examinations, in which, he puts it, success is purchased at too great a price, if health is permanently impaired. To carry out honestly the suggestions of these experts would mean duplication of instruction in the secondary schools, a most inopportune demand upon the administrators of education. They are mainly intent upon showing how *reasonably* it can be done. That, however, is the only truly economical plan which enables each sex to get the most complete benefit out of its school course.

We are all keenly alive to the seriousness of the problems of adolescence, and we make abundant professions that we must consider at this stage the individual child. How difficult the task with but a dozen or more of boys, displaying all possible variations in mood, ability, tendency! To complicate this problem by the consideration for about the same number of girls, with their specific physical and psychical manifestations, are we not inviting discomfiture in our school work by yoking together and forcing to a common gait groups of essentially different temperamental caliber? More than two hundred years ago Fénelon in his *Education des filles* contended "nothing is as much neglected as the education of girls"; in a certain sense it still obtains.

The time has come, I believe, to base a rational educational scheme upon an analysis of girl nature; it should recognize their potentialities, their methods of thought, their defects, and their merits; should strengthen, control, direct their energies. Contrast the girls as a class with the boys, and they have livelier fancy, quicker perceptions; they memorize more readily and forget more easily; they are intellectually more precocious and less persistent; they prefer generalizations to the inductive processes of observation. By proper

educational methods develop their excellences, make their weaknesses yield to watchful teaching.

It is hardly part of the present program to outline the type of studies that would give our girls both stimulus and gratification, but you will pardon the attempt at a first generalization. We want for them simpler courses of study; not expansion of subject-matter, but genuine understanding of the topics selected, that will make for capacity, power. Let those who are physically and mentally exceptionally strong cope, if they will, with the standards that prevail at present, but for the rest, for the great and *valuable* majority, let us remove the everlasting directive of the examination test. We should incorporate in their studies as a supplement to their emotional tendencies subjects of exact experience, to develop their logical and observational faculties; mathematics presented with many practical applications, with real problems suggested by the economies of home and business. From their geography eliminate the mechanical memory-work, and substitute for exclusively political or physical geography, anthropogeography, the study of man's relations to his surroundings, natural, industrial, and commercial. In the experimental work of the nature studies there are unusual and stimulating possibilities, peculiarly appropriate to young women; for hygiene, public and private, pursued on scientific lines, there is available a large material that involves laboratory work in chemistry, physics, and biology. The study of life in the plant-world leads by natural transition to food studies, to considerations of air and water, of recreations, of mental and physical fatigue, to the principles underlying the usual household processes, with ample scope here for the development of the economical and the artistic tendencies. In every subject covered (and I refrain from dwelling on literature and history and languages) there is needed such a modification of existing methods of instruction as will carry to fruition their special gifts, stimulate them to independent genuine thought, to participation in the greater social work of life.

With the highest respect for the members of my own calling, I must say, there may be another goal for the ambitious girl

than the vocation of teacher. Woman's education would be appallingly narrow if the sole product were the efficient teacher; we set before our girls too restricted an ideal of the cultured woman if we do not enlist their enthusiasm for other manifestations of their capacity. In social work we are calling today for women of trained knowledge, of systematized enlightenment. We need them in our various public utilities, in the charities, on the school boards; the practical insight of women, the combination of knowledge with the purely personal quality of native sympathy has given us in your own immediate surroundings some notable illustrations of woman in her privileged sphere. We need the intellectual reaction of woman in our private and public life, and the next generation should witness her triumph in fields which are her own by special prerogative, and in which men will gladly yield to her the palm of undisputed excellence.

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V

OLD AND NEW FASHIONED NOTIONS ABOUT EDUCATION¹

If we attempt to characterize present-day education and educational ideas, we can not escape the conviction that a tendency toward weakness and effeminacy is its chief trait. This is true not only of educational practice, but in a higher degree even of educational theory.

In theoretic discussions the "question of overburdening" occupies the central position. In teachers' meetings, at medical and psychological congresses, at teachers' conventions, in fact everywhere, the subject as to whether we overtax and overwork our pupils is most seriously debated. Observations and statistics "on fatigue" are being compiled, and, for a time, work of this kind formed a favorite sport. Investigations were ordered for the purpose of finding out how long it takes the average child to complete its daily tasks. Physicians adopted resolutions, and medical colleges determined the maximum length of time during which a child of a certain age might with safety be allowed to be kept busy at school and at home. At all educational gatherings, plans are submitted as to how force and compulsion might be eliminated from the training of youth. Interest and pleasure are to be made the sole motive forces and the mainspring of work. The idea of duty is no longer to play an important part in the education of the future. The "philosophy of joy and happiness" is in vogue and has captured both the home and the school. Wherever teachers assemble the question of how to

¹ "Alte und neumodische Erziehungsweisheit," *Die Woche*, Berlin, February 1, 1908. Translated by Professor C. F. Kayser, of the Normal College, New York City.

[While all of Professor Paulsen's arguments and conclusions do not seem applicable to existing conditions in the United States, yet his present article proves to be of unusual value.—EDITOR.]

make this or that branch of study easy and pleasurable for the child is earnestly considered, and from the green table of government offices comes the word: Joy must be brought back to the schoolroom.

All this talk finds its echo in current literature. Not only are the pedagogic journals filled with all sorts of philanthropic articles, but even the popular magazines devote a larger part of space to educational articles than they have ever done before. It is, however, primarily the negative side which finds its expression in these articles; that is, the destructive and the evil effects resulting from the pedagogy of force and coercion, from the mercilessness of misdirected teachers and educators. The daily press delights in dilating upon serious cases of conflict between teachers and pupils. Occasional occurrences of suicide among children of school age offer a favorite subject for newspaper reporters. During the last few years the arbitrary suppression and the misery of childhood have frequently been made the text of novels. Poorly-endowed children have been made to appear the victims of murderous ambition on the part of parents, or of culpable lack of intelligence on the part of teachers—who might better be called school masters or school tyrants than educators. The children are spurred on by them, they are driven or flogged along, until at last they fall exhausted by the wayside. Youths of ambition and promise, desiring to set their own pace, are instructed in hackneyed fashion and held back by ordinary teachers who have no understanding of what personality means. And if such children refuse to submit, or will not tolerate the treatment accorded them, they are maltreated, insulted, and humiliated to such an extent that they prefer death to life. No less appreciated than these school novels are the school dramas. In compliance with the law of supply and demand, these dramas are manufactured in large numbers and represented on the stage before large crowds. In these plays the spectator is admitted to faculty meetings, and these meetings are intended to produce on him the same effect of fear and horror as the tortures of medieval secret tribunals and courts of inquisition were wont to produce on him in his early youth. Principals and teachers

are usually represented as silly, idiotic fools, but, at the same time, also as cunning and hard-hearted judges and executioners who take pleasure in carrying fire-brands to the pyre on which the guilty ones—and in their minds all pupils are guilty of laziness, impudence, and stupidity—are to be burnt.

Thus speak theory and literature, and educational practise suffers from, and under, these statements. Everywhere there is a desire to relax requirements. In the home we find lenity and indulgence to be the rule. But it is lenity or forbearance with faults euphoniously styled peculiarities which must be excused and overlookt, lest the child's individuality and personality might be arrested in their development and its characteristics be lost. It is indulgence that concedes, and yields to, every kind of wish and desire, to every whim and conceit. The claim is, nature must be allowed to take its course; by opposition and refusal desires are only heightened and, as soon as the restraint of outward authority is removed, they will assert themselves only the more strongly. The same reasoning is applied to the school. Under the pressure of public opinion the school is inclined to lower its aims, to reduce and to lighten its work. Still, at the end of the course, the pupil is supposed to have mastered the curriculum, but it must have been done without effort on his part. It is the business of the instructor to instil into the pupil, but without his having been made conscious of it, all that he is to know. Without too many recitation hours, without home-work, without examinations, he is expected, at the end of his school career, to be in possession of all desirable knowledge, of all necessary arts. The method of instruction is to be so improved that the subject-matter will "stick" of its own accord. If this is not the case, the fault lies with the teacher, for, of course, the pupil can not be held responsible for failure when his teaching has not been intelligent and scientific.

One is almost tempted to envy the children of to-day, and to regret that our own youth did not fall in the "century of the child" in which the children are always right and parents and teachers always wrong. How different was it when we were young. When we attempted to set our own will against

that of our parents we were told that stubbornness would not do, and that obstinacy had to be broken. When we neglected to do our work in school, our failure was not laid up against teacher or course of study and its unreasonable demands, but rather to our lack of diligence, application, and will power, and when we had to take the consequences of our deficiencies, there was no one to console us, no one to sympathize with us in our undeserved suffering. Had we presumed to pose as martyrs and bearers of the cross, we should have been mocked and laughed at by the whole world.

And yet how queer and paradoxical are the effects of the modern system upon the minds and souls of our children. The boy of to-day, tho the product of a milder, more affectionate, and conciliatory education, feels unhappy, oppressed, misunderstood, and maltreated, while the sterner treatment was accepted by us in a spirit of calmness—nay, even of jollity, and good humor. We never felt that we deserved pity, while the youth of today, tho flattered on all sides and made the recipient of compassion and sympathy in his grief and suffering, is dissatisfied with the world at large. Everywhere we meet young people posing as lonely sufferers, obliged to go thru this world misunderstood and unappreciated, whose joys and pains must forever remain unintelligible to the average man—and teachers and educators always belong to this class. Nietzsche is for them the prototype of that interesting state or feeling of “untimeliness,” that unfailing sign of higher destiny. Cheerfulness and contentment are the sure indication of an ordinary mind, while genius is predestined for struggle and revolt, for loneliness and isolation.

I called this effect paradoxical. Or are weakness and sadness, morbidness and discontent, perhaps the natural and necessary results of effeminacy in education? The trend of the times can, of course, not remain concealed from our children. They, too, read the educational papers from which their mothers derive instruction and enjoyment. They, too, see the pitiable figures of their teachers and the caricatures of their tutors represented on the stage. They, too, admire the little heroes who among their classmates preach and organize rebel-

lion against tyranny, and who either conquer or perish as tragic personages. Is it strange, then, that these young people should feel disappointed, when they find that in real life their fancies are opposed, and their vaporings are exploded? Why should they not consider themselves as fit subjects for commiseration, when they see themselves put in charge of such men as are portrayed in those writings? Sentimental sympathy makes sad, a truth than which there is none more certain. A child which has long since ceased weeping over little injuries will, if coddled and petted by an over-anxious and over-sympathetic aunt, again open up the flood-gates of tears, while if handled by a resolute mother, who asks no questions and makes no fuss, but turns its attention to something new, it will soon have forgotten the whole matter. My counsel, therefore, is to return to the "*educatio strenua*," the sterner and severer training of former days, and to dismiss, once for all, "the theorists of over-work and coddling." Three great imperatives stand out as the guide-posts to all true education. They are: Learn to obey! Learn to apply yourself! Learn to repress and to overcome desires!

1. Learn to obey! By obedience I do not mean a merely outward submission to outward force and authority, but the voluntary subordination of one's own will under the will of a better and higher intelligence. He who has not learned to do this in childhood will have great difficulty in learning it in later life; he will rarely get beyond the deplorable and unhappy state that vacillates between outward submission and uproarious rebellion. No greater wrong can be done to childhood than the one caused by our desire to spare it the necessity of obeying. Whoever conceives the duty of the educator to consist in giving in to all desires of the child, in gratifying all its wishes, makes himself guilty of the gravest sin toward his child. He denies it what, in view of its future mission, it can not afford to lose, namely, the exercise in voluntarily subordinating its own will under necessity, be it a natural or a social one.

I hope I shall not be misunderstood. I do not recommend harshness, moodiness, and arbitrariness. These are as subversive of proper training as blind tenderness and affection;

they also make free obedience in the pupil impossible. Only that wise firmness whose roots lie in our love for the child and in our concern for its future,—will produce the kind of authority that in time is sure to be followed and rewarded by willing obedience.

2. Learn to apply yourself! It is true, sensuous nature does not love continued, long-sustained, and fixed effort, but it does love casual and quickly-changing activity. Yet all that we call higher civilization and culture, not only the civilization of the outer world, but also the culture of our own selves, depends upon our ability to bend and direct our mental and bodily powers, free from momentary influences and inclinations, toward a definite and fixed goal. And if it is the aim of education to prepare the coming generations for the solution of the problems of life, surely the training of the will, or the persistent and intensive exercise of all powers toward reaching a certain end, belongs to its very highest tasks. The road leading to this is exercise, or "training," as it is called in English, the physical, moral, and intellectual training. In these words lies all there is in educational activity. Training means the straining of one's powers, at times, even to the point of exhaustion. The watchwords of true education, of the "*educatio strenua*," are therefore not lenience, relaxation, and sympathy, but encouragement to effort and to untiring energy and exertion.

I again hope not to be misunderstood. There is a measure in all things. The boy can not be expected to do a man's work. I know full well that in former times, for instance, when Minister Altenstein considered eleven hours of home-work as not excessive for boys of the middle and higher forms the reasonable limit was overstepped. Such demands were repeatedly condemned by me, and the complaints against these requirements were justifiable. But I wish that for the next thirty years the word "overburdening" were not uttered again, at least not within the hearing of our pupils. Discussions on "overburdening," as well as on "heredity"—I mean heredity of all defects and shortcomings of body and soul, these unnerving and emasculating catchwords—ought for some time

to be banished from all pedagogic meetings. They might be replaced by talks on the "possibilities of the human will," or by discussions on themes like "We can, if we will!" The pupil's pride ought to be appealed to by telling him, "I hope you will not permit it to be said that you are not equal to the task; a good boy never fails, when honor is at stake." In physical training we have made progress within the last few decades; let us see to it that we do not retrograde in moral and intellectual training. If this should ever come we should have to change the old maxim so as to read: "*Qui proficit in physicis et deficit in moribus, plus deficit quam proficit.*"

These words need especially be addressed to our physicians whose interest in school hygienics I otherwise so greatly welcome. They must be reminded of the fact that bodily training is not the sum total of education, and that hygiene must make its compromises with the rest of life's necessary aims. I fully agree with A. Moll, who, in his book on *Medical ethics*, says: "Physicians can not urgently enough be reminded that the real aim of the school, viz., the pedagogic aim, may be seriously hampered by too severe hygienic demands." "It goes without saying"—I no longer quote his exact words—"that romping about in the open air for six hours would be healthier for the child than sitting in a schoolroom, but to put this admission into the form of a demand would, of course, make all school instruction impossible. But the most serious mistake, according to his opinion, is to speak in the presence of children of over-work and over-taxation, for that gives the child the best excuse for laziness and for making the school unbearable and detestable to him."

3. Learn to repress and overcome desires! Self-denial is the last and highest stage of wisdom; thus preached the sages of all times down to Kant and Goethe. Desires are like the jars of the Danaïdes that never could be filled. The more we yield to our sensuous impulses and appetites the stronger and more exacting they become; and what is worse, they are accompanied, *pari passu*, by a steadily increasing feeling of discontent. It is the part of wisdom, therefore, to check our desires and cravings in time, and that time is the period of pliable

youth, when habits may still be formed and firmly implanted. But how may we govern and regulate these desires? Not by weakly yielding to every whim and prompting, by indulging in luxury and immoderateness which only multiply and increase the whimsical and excessive demands for pleasure, but by a simple, frugal, and orderly gratification of our natural wants and needs. Education may choose either one of these roads, the road of discipline or the road of sense emancipation, the former leading to the control of the mind and spirit, the latter ending in man's submission to the impulses of enjoyment, and, in the last analysis, in his complete surrender to his animal nature, to utter weakness.

Does our present-day education deserve praise in this direction? I fear not. Comparing it with that of our own youth we find it shows, with all classes of people, marks of undue tenderness and effeminate indulgence. But how, you will ask, could it be otherwise? How could we deny our children the pleasures and enjoyments we so eagerly seek for ourselves? The enormously increased demands for pleasure in our metropolitan life have taken hold, in equal manner, of the classes and of the masses. Imperceptibly our children are drawn into this life. Instead of enjoying themselves by taking part in the open-air games that, for centuries, have been the delight of our country children, the city boys and girls are found at children's balls and in theaters, at expositions and watering-places, in music halls and other public places of amusement. To these diversions will undoubtedly soon be added the joys and excitements of popular assemblies. How different is the modern practise of giving presents. Formerly it was only Christmas that gifts were made and received; in our time hardly a day passes without offering such a chance, or even the necessity of doing it. Every feast day, every home-coming, every visit brings to our little ones gifts which are more or less costly and extravagant. And yet, in spite of being over-sated, their hunger grows; tho gorged with toys, books, and pictures, they suffer from loneliness and isolation.

I ask once more not to be misunderstood. I do not begrudge the child. I do not begrudge it its modest share in the

larger wealth and affluence of the present day, for even if we would we could not entirely exclude it from them. But it remains an eternal truth that modest simplicity is the greatest blessing for our children. Simplicity alone will keep them healthy, active, and happy. Immoderateness and luxury lessen their powers, they weaken especially their inventiveness and independence. They annihilate all capacity for real enjoyment, and at last produce that state of vague and morbid avidity which forever looks for change and novelty. It is in this mental state that disgust with life and pessimism find their nourishment. If we wish, therefore, to see our children grow up healthy and happy we must restrict them; we must develop in them a desire for self-activity, and teach them to take pride in voluntarily renouncing pleasure and enjoyments, even such as are permissible.

A stern education will in due time also be surely rewarded by gratitude. This rule has only one exception. It is described by E. Seillières in his recently-published book, entitled *The romantic disease*, in the following words: "Whoever is afflicted with some form of hereditary physical degeneracy and is born into this world without the proper allotment of force and control over the impressions of the moment, without the power of self-direction and adaptability to his environments, will,—as is seen in the lives of almost all pronounced romanticists,—be subject to what is called 'pathological egotism,' a disease that expresses itself, in childhood, by a self-willed, obstinate, and rebellious nature, and that will keep those thus afflicted in bondage for the rest of their lives." To a certain extent this trait may be noticed in all great men and exceptional individualities, but in the child of the romantic period this instinctive rebelliousness assumes an unusual form of morose spitefulness, and usually develops into a state of almost systematic persistence and obduracy. The sons of a healthier time soon forget the stripes of their boyhood, and later on they will even thank their parents for their chastisements. The former, however, will store them up in their hearts and will allow the pouting of their childhood to permanently influence

the conduct of their lives; yes, they will cause it even to be made the basis and content of their dogmatic philosophy.

In order to join end and beginning of my remarks let me add one more point. The education which thus rests upon the three imperatives is also the best method by which most securely can be developed in the young man that strength of will which alone can furnish the safeguard against the impulses aroused in the time of puberty and threatening the overthrow of his moral self. An absolute safety from the dangers which this last and most tyrannical of all of nature's impulses brings to his life does not exist. But what education can do toward tiding our children safely over this most perilous of all crises in life is, in addition to our training them to modesty and chastity and our cautioning them against infection, in reality nothing else but an endeavor on their part to accustom themselves, by free and voluntary obedience, by serious and self-directing activity, and by repressing their sensuous desires under a rational will, to self-control and mastery. I do not wish to reject altogether the so-called "enlightenment about sex-life" which is nowadays so urgently demanded and which is looked upon as the only remedy. It may be of use when this "enlightenment" comes from a judicious and sympathetic physician, but the practise of giving our children scientific instruction regarding the processes of reproduction I consider valueless. It may, at times, even destroy their natural naïveness, and direct their attention to these matters and arouse in them a morbid curiosity. All power of resistance, in this direction, must come from serious efforts in will-training. Otherwise the instruction counts for naught. It is not ignorance, but effeminacy, idleness, and dissolute desires upon which the demons of licentiousness and lewdness live and thrive.

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VI

CREDIT FOR QUALITY IN THE SECONDARY SCHOOL¹

The present system of giving credit towards graduation in use in the secondary schools, takes account mainly of the amount of work done. It, however, passes upon the quality of the work, when it fixes a passing mark. It recognizes just two grades as far as quality is concerned—that which is good enough to pass and that which is not. There is a wide range, and consequently many different degrees of quality, above the passing average which receive no recognition as far as credit towards graduation is concerned. The student who barely passes his work gets just the same amount of credit towards graduation as the one who passes high up in the nineties. It is to be expected, then, that the student, living, as he does, at a time when economy of production is the key to success, will reason something like this: I will be graduated if I pass my work in the seventies just the same as if I pass it in the nineties. What is the use of wasting time and effort in securing a high average? Thus the present system with many students is likely to encourage superficial habits of study, and low ideals of scholarship. If a system could be devised which would not only fix a minimum of quality, but would also recognize different degrees of quality by giving more credit towards graduation for high quality than for low, the result may reasonably be expected to be greater effort on the part of the student, and thus a strengthening of the intellectual life of the secondary school.

In the plan which I am about to present, I have tried to embody the idea of credit for quality of work, as well as for

¹ Paper read at a meeting of the State High School Teachers' Association at Newark, N. J., December, 1907.

quantity. The basal ideas of the plan were first presented by President William DeWitt Hyde of Bowdoin College in an article in the *Outlook* for August, 1902. The plan, with some modifications, is at present being used in the University of North Dakota and Columbia University with results that are reported to be highly satisfactory.² Suppose that a recitation once per week during the school year be considered to stand for one unit of work. Then a subject of five recitations each week for a year would represent five units of work. If during each year of the course a student were required to carry the equivalent of four five-recitation subjects, the whole high school course would thus consist of eighty units of work. Suppose the students were graded by the teachers into five groups: e.g., A (excellent), B (good), C (fair), D (poor, but passing), E (below passing average). A student who past a subject of one recitation per week for a year with a grade of A might be given 1.3 units of credit towards graduation. A student passing the same work with a grade of B would receive 1.2 units, the C student one unit, and the D student one unit; only it might be necessary to limit the number of Ds that a student could have, providing he is to receive credit for quality in other subjects. Let us see how the plan would work out in a single instance. Suppose that a student should receive the grade A in 20 hours of work, 20 times 1.3 would give 26 units of credit towards graduation. If he receives the grade of B in 25 hours of work, 25 times 1.2 would give 30 more units towards graduation; if C in 20 hours, 20 times 1 would give 20 units credit, and D in five hours would give five more units of credit. The results are summarized in the following table:

A	20	×	1.3	=	26
B	25	×	1.2	=	30
C	20	×	1.	=	20
D	5	×	1.	=	5
	70				81

² See articles by Professor Calvin Thomas in *EDUCATIONAL REVIEW* for April, 1905, and Professor Joseph Kennedy, *EDUCATIONAL REVIEW* for December, 1906.

Thus the student would get 81 units of credit (one more unit than the course requires for graduation) for 70 hours of actual work. This means that he could complete the high school course by carrying approximately 17 hours during each of the four years instead of 20 hours as he is obliged to do at the present time. Thus to enable the student thru his own effort to reduce the amount of work that he must take for graduation, it is hoped that he will not only be able to do better work because he has more time to do it, but will do better work because he is stimulated to do it by his desire to reduce the number of prescribed hours in his course. The plan is a flexible one and might work itself out a little differently in the case of exceptionally mature students, or students who for financial reasons must make the time spent in school as short as possible. Instead of reducing the number of hours that they carry each year from 20 to 17, they might be allowed to carry the maximum number of hours of work, thus being able to finish in 3 1-2 years or 70 actual hours of work. These would be exceptional cases, however. For the average student the four years is none too long.

The proposed plan is superior to the present system in that it gives a natural and not an artificial incentive to high scholarship. The present plan recognizes high scholarship only by the giving of marks and honors. These, to be sure, gratify the pride of the recipient and his friends, but they are artificial rewards. By the proposed system a student's success is proportional to his effort and ability.

It is, I believe, universally recognized in education that to study a few things with thoroness leads to a much sounder scholarship than to study many things superficially. The system puts a premium on thoro-going scholarship by enabling the student to come up for graduation without being forced to study so many subjects that he is not able to do any of them well. He may substitute depth for breadth, if he so desires, and is encouraged to do so.

There are many details and adjustments of the plan, of course, which would have to be worked out by experiment when it was being tried in the schools. There are certain

adjustments, however, which one can see would have to be made from the start. For example, a student should not be allowed to substitute quality gained in some subjects for all the work in a given department. In this way he would be able to graduate from the high school without having studied any mathematics, or any English at all, for example. Every student should be required to take a minimum amount of work in each of the departments. In mathematics, for example, algebra thru quadratics and plane geometry might be required; no credit for quality gained in other subjects being accepted in place of them. He might, however, be allowed to substitute quality gained in other subjects for solid geometry, trigonometry, or advanced algebra.

The question as to how much credit is to be given for quality to students entering up from other schools, is one that would have to be met. It may be answered in several ways, but the solution which seems to give the fullest measure of justice to the student and school as well, is this: Allow the student to enter just as he would under the present system. At the end of a term, say, the teachers, with the records of the previous school before them, would be able to pass with intelligence upon the amount of credit to be given.

This objection, I suppose, might be raised to the proposed plan. The student who reduces quantity of work taken in the high school by the substitution of quality will so reduce his course that he will not be able to meet the college entrance requirements. I have examined the entrance requirements of four typical colleges, Cornell, Princeton, Lehigh, and Harvard. The amount of time in hours that a student must devote in the high school to each subject required for entrance will be found opposite the name of the subject in the table below. The total is also given.

Thus it is apparent from the above table that the proposed plan would not seriously injure a student's chances of passing his entrance examinations.

That the proposed plan will act as an incentive to the student to produce higher-grade work, seems to be borne out by the experience which many schools have had with the plan

of granting college entrance certificates to those students only who obtain a certain average in the subjects required for entrance; this average being from ten to fifteen points higher than the passing average. Students are usually ready and willing to pay the extra price in hard work, in order that they may secure the certificates.

CORNELL	LEHIGH	PRINCETON	HARVARD
English 15	English 15	English 10	English 10
History 5	American history ... 5	History 5	History 8
Plane geometry and algebra . 15	Algebra 10	Mathematics 15	Mathematics 14
Spherical geometry and trigonometry .. 4	Plane geometry 7	Greek 13	Greek 10
Modern language 15	Trigonometry 2	Latin 20	Latin 10
Second modern language ... 10	Spherical geometry ... 2	Modern language 5	Modern language 13
Physics or chemistry ... 5	Physics 5		Physics 5
	German 13		
Total 69	59	68	70

Now the plan here proposed does not claim perfection. It may not even be a workable scheme when put to the test. There are certain features about it, however, which seem to me to recommend it to the consideration of every teacher. It tends to stimulate the student to greater effort, and thus to raise the quality of scholarship of the high school. It affords a way of escape from the burden of a curriculum which many are coming to believe has been too much enriched.

W. B. SECOR

STATE NORMAL AND MODEL SCHOOL
TRENTON, N. J.

VII

THE NEW YORK SYSTEM OF SECONDARY SCHOOLS ¹

The organization of the New York secondary schools is the product of an evolution. It was not preconceived and built like a house or a bridge, but has developed like a slow-growing oak or elm tree. It has not been fashioned after the model of any European system, nor has it a counterpart in any other state of the Union.

The beginnings of the system go back to the eighteenth century. Five years before the adoption of the Constitution of the United States, the New York legislature enacted a law creating a Board of Regents to promote the interests of higher education. At this date, May 1, 1784, the population of the whole State did not exceed 340,000. There were then no public high schools in the State and only two academies, both of which were located on Long Island, and contained, in all, not more than eighty students. By an act of incorporation the Board of Regents at its second meeting assumed control over these two academies—a control that has thus been extended to all academies that have since been organized in the State.

As early as 1788 the Board of Regents was so concerned at what they called "the state of literature" in these two academies and in Columbia College, which was then the only institution of college rank in the State and had but forty students, that they made a direct appeal to the legislature to be invested with authority to take possession of certain public lands belonging to the State so that the Board might have an annual income to be devoted to the building up of academies in every part of the State. In 1790 the legislature not only

¹ Read before the High School Section of the Rhode Island Teachers' Institute, at Providence, October 17, 1907.

granted this request but also appropriated £1000 from the State treasury for immediate expenditure.

This act of the legislature in 1790 is very significant because it inaugurated a policy of making generous State appropriations for secondary schools which has been continued to the present time, and because it placed in the hands of a State Board the means and the power to fashion and control indirectly the secondary schools of the State. The State has never wavered in this policy. The appropriations have been enlarged from year to year as the schools have expanded and last year amounted approximately to \$485,000. Under this fostering care of the State, the number of academies grew apace. From two such schools in 1784, the number grew to 30 in 1820, to 58 in 1830, to 118 in 1840, and to 160 in 1860. In 1820 the State apportioned to academies \$2,500. In 1860 this annual apportionment amounted to \$40,000.

It is evident that secondary education in the State of New York during the first half of the nineteenth century was obtained chiefly in the academies, altho in the latter part of this half century there was a clearly defined trend toward the establishment of free public high schools; but, outside of a few specially chartered, semi-public secondary schools, it may be said that the high school movement did not crystallize until 1853, when the legislature enacted a general law providing for the organization of public high schools thruout the State.

This act of 1853 sounded the death-knell of the local academy. In fact it specifically provided for its elimination and absorption wherever and whenever such a process seemed necessary or desirable. Altho between 1787 and 1884 about 375 academies were incorporated, yet in 1884 about 250 had become extinct and from 50 to 60 others had been merged into public high schools supported by taxation. Such academies have survived the overpowering influence and popularity of the public high schools as have had an exceptional environment or endowment or the sufficient support of some religious sect. At the present time there are 156 of such academic schools, of which 16 represent Protestant denominations and 99 are maintained by the Roman Catholic Church. It is sig-

nificant to note that, while the number of Protestant seminaries in the State is slowly decreasing, the number of such Catholic schools chartered by the Board of Regents and complying with its regulations is rapidly increasing, the increase amounting to seventy per cent. in the last ten years.

The act of 1853 not only dislodged the semi-private academies, but it set up in their place a unique organization, which, during the last half century, has proven itself to be both adaptable and efficient. This statute provided for the organization of union school districts varying in size to suit local conditions and containing a school that has both elementary and secondary grades under the management of one principal. This scheme recognizes the need of supervision, places it in the hands of the one that has the best training and the widest outlook, bridges the gulf between the elementary and secondary school and tends to promote economy of organization and efficiency of instruction. There are 561 such village schools in the State of New York exclusive of villages that employ a superintendent. Of these schools 323 maintain a curriculum of four years; 60, of three years; 52, of two years; and 126, of one year.

Very early in its history the Board of Regents was confronted with the problem of defining the conditions under which the State should apportion public moneys to secondary schools. By an ordinance of the Board past in 1828, an attempt was made to fix clearly the bounds of elementary instruction and to designate the qualifications of academic students entitled to recognition in the apportionment of State moneys. This ordinance of 1828 contained the genesis of a system of State examinations, which, in range and quality and in its influence upon school education, has no parallel in any of the United States. But examinations by State officials were not actually inaugurated until 1864. Since that date they have been continuous and are now mandatory in the last two years of all public and private secondary schools that share in the apportionment of public funds. The dimensions of this State system of examinations may be estimated from the statement that last year the total number of answer papers written ex-

ceeded a half million, about three-fifths being academic and two-fifths preacademic. The examinations occur semi-annually in January and June and cover all subjects required for admission to, and taught in, the high schools, excepting such subjects as manual training, domestic science, and vocal music. The total number of different question-papers regularly issued semi-annually is seventy-nine.

The results accruing from the examinations initiated by the Regents in 1866 were so generally approved that the legislature past an act in 1877 endowing the Board with almost plenary power over the secondary schools. This act made mandatory provision for three things: a complete system of examinations, a standard of graduation based upon examinations, and the issuance of State diplomas. The elaboration of these three functions has steadily progressed, keeping pace with the evolution and expansion of the State's secondary schools.

The natural sequence of examinations is a topical outline of the subjects studied, known as syllabuses. A mariner can not expect to navigate a stormy sea without a knowledge of the currents, tides, and winds; neither can a teacher hope to prepare his students for an alien examination without knowing the metes and bounds of the subject upon which the test is based. The first syllabus as a "summary of requirements" was issued by the Board of Regents in 1880. Since that date five revisions have been made, the last of which occurred in 1905 under the unwritten rule that the syllabuses shall be revised and brought up to date once in five years. The present syllabus for secondary schools is a somewhat pretentious document consisting of 321 pages and containing not only topical outlines of subjects and laboratory exercises in physics, chemistry, physical geography, agriculture, and the biologic sciences, but also suggestive lists of texts in the modern foreign languages, and recommendations relating to the time, order, and methods of teaching the several subjects. For example, the syllabus in English comprizes the books prescribed for admission to college, designates the texts to be read in each semester, defines the ends to be accomplished in the study of literature,

and indicates rather definitely the instruction that should be given concurrently from term to term in composition, rhetoric, and grammar. In preparing these syllabuses the State Education Department has had the coöperation of committees appointed by associations of principals and teachers and the help of the best experts obtainable within the State.

To supplement these syllabuses the Department has recently issued four handbooks, two containing suggestive lists of reference books and apparatus, and two for the use of students, containing directions for performing the experiments in chemistry and physical geography.

Exclusive of the teachers, the most determinate characteristic of a school is perhaps its course of studies. Theorize as we may about the educational value of the several subjects of study, there is no escape from the conclusion that the mind and life are profoundly influenced by the nature of the knowledge which the mind apprehends and ponders during a series of years. In education, therefore, the curriculum is fundamental. In Germany, the courses of study are made by State officials. In this country this supreme responsibility is generally placed upon local boards of education, superintendents, and principals, many of whom are sadly lacking in educational information and experience. The Empire State, however, occupies a conservative middle ground between autocracy and democracy. The State and locality coöperate. The Board of Regents defines policies and lays down regulative principles; the local boards of education by a process of selection and adjustment adapt a curriculum, which, in their judgment, is suited to local needs.

The State Education Department, however, possesses an effective control over courses of study in all secondary schools that have membership in the University of the State of New York. This control is accomplished in a variety of ways which I shall enumerate and briefly explain:

1. Before an academic school of junior grade, i.e., a school that maintains a one-year curriculum, can be admitted to the University and thereby come under the control of the State and be entitled to receive money from the State, it

must have suitable apparatus worth at least \$100 and library books worth not less than \$200 and must maintain an approved course of studies that shall include English, mathematics, and science. As the school advances to the middle, senior, and high school grades, it must add for each step forward \$50 in apparatus and \$100 in library books, and must provide for the teaching of English, mathematics, and history in the second year, English and history in the third year, and English in the fourth year. To encourage schools to come under State control, the Board of Regents annually apportioned to every school in the University that complies with its regulations a quota of \$100, one-half of the amount expended by the schools for approved apparatus and library books up to a maximum of \$500, and about two cents a day for each day's attendance of a qualified academic student. The total amount paid by the State to the schools for these three purposes last year was \$463,598.74.

2. The State exerts a more extended and specific control over courses of study thru the operation of a law by which the State pays the tuition of academic students coming from rural districts. This statute, enacted in 1903, empowers the Commissioner of Education to define the conditions under which a public secondary school may be authorized to receive non-resident students at State expense. In accord with this authority, the Commissioner of Education has prescribed that a school receiving non-resident students must possess a suitable school building, must maintain a standard of discipline and instruction satisfactory to the State Department, must provide laboratory facilities for individual experimentation in physics and biologic science, and must prescribe English, algebra, plane geometry, English history or ancient history, and American history. In the selection and addition of other subjects the local board of education may exercise its discretion, providing it maintains a three-year curriculum under which each student may have at least 18 lessons a week. Altho this stipend is only \$20 a year, all village schools that have small classes are anxious to meet the conditions since the accession of such students enlarges and improves the school without

increasing the cost of instruction. In addition to the schools located in cities, there are 423 schools on the authorized list for the current school year. Under this law, during the school year 1906-7, about 10,000 boys and girls from the rural districts received free tuition in the public secondary schools at an expense to the State of \$152,000. The beneficent results of this free tuition law are twofold. It not only furnishes free instruction to an exceptionally capable and industrious class of worthy students, but it also stimulates scores of small schools to improve their buildings, to construct and equip laboratories, to extend their curriculums, to increase the number of teachers, and thereby to furnish better educational facilities for resident students. No other agency employed by the State to improve the small village schools has been equally effective.

3. A law enacted in 1895 grants to the State Department another means of shaping the courses of study in secondary schools. This statute provides that a person qualified to teach in a city elementary school must not only be a graduate of a class or school for the professional training of teachers, but must also be a graduate from a high school or academy whose course of study is approved by the Commissioner of Education. In pursuance of this law the Commissioner has designated rather definitely the academic subjects of study to be included in a curriculum for persons intending to be teachers. This curriculum comprizes 18 lessons a week for four years and embraces English for four years, algebra, plane geometry, ancient history, English history, American history with civics, biology, physics, and a foreign language for at least two years. The laboratory method of instruction in the sciences is prescribed and no one of the designated subjects of study is to be pursued less than a year. In addition the student must have at least one lesson a week in vocal music throughout the four years and must study drawing four years with not less than two lessons a week during two years and one lesson a week in the other two years. Emphasis is thus placed upon the time-element in education on the theory that the longer courses make more lasting impressions and yield

more substantial results in training and scholarship. Other subjects amounting to 23 per cent. and necessary to complete a four-year curriculum of 2880 recitation periods are left to the option of the school or student. The State does not, of course, require any secondary school to establish such a course of studies nor to supply academic training to persons intending to become teachers; but, inasmuch as no person can be admitted to any one of the 10 normal schools or 14 city training schools for teachers without meeting the State requirements, the local demand for such school privileges is often insistent and in many places even compelling. If any one is disposed to think that this power of the State over the courses of study to be pursued by prospective teachers is too extensive or too rigorously exercised, he should remember that in the education of the State's children nothing is more fundamental than that the teachers in the elementary schools should have a sound and symmetrical education.

The State also exerts a direct and immediate influence over the organization and teaching of the secondary schools by a system of inspections. Fourteen men regularly appointed thru the Civil Service travel about the State during the school year to visit, inspect, and report upon the high schools and academies. It is the duty of the inspector to obtain information relating to school grounds, the care, sanitation, and adequacy of school buildings, the observance of the compulsory attendance law, the equipment of libraries and laboratories, the courses of study, the programs of recitations, the adequacy and efficiency of the teachers, and in fact all matters that concern the schools' organization, discipline, and instruction. At the conclusion of the inspection of a school, the inspector regularly holds a conference with the principal and teachers and with the superintendent or local board of education.

The written reports which the inspectors make to the Department furnish information upon which the Chief of the Inspections Division conducts correspondence with local school authorities looking toward needed improvement in school buildings, equipment, organization, courses of study, and the effi-

ciency of the teachers. As a result of this correspondence school buildings are often repaired and enlarged, new buildings are constructed, courses of study are overhauled, boards of education are incited to increased activity, principals and teachers are stimulated to greater efficiency, and incompetent and unfaithful teachers are dismissed. In all cases, however, the inspector is required to be tactful and sympathetic, to coöperate, if possible, with principals and teachers, and to point out specific ways and means of improving the school.

The usefulness of this system of school inspection is obviously greater in the small schools that have no systematic supervision and where the principals and teachers are comparatively young and inexperienced; altho it is to be said that important reforms in large city schools are often inaugurated in consequence of information furnished by the inspectors to the Department. The amount of money expended by the State to maintain this arm of the service last year was \$45,701.

Altho the State Education Department comes into close contact with the secondary schools thru its inspectors, its most vital and dominating influence over the teaching in the schools is doubtless to be found in its system of academic examinations. This scheme of formal examinations is altogether unique. Since its inauguration thirty years ago, it has progressed evenly and steadily and has assumed large proportions. It now reaches every city and village in the State where a secondary school is maintained. At different times it has been severely denounced and bitterly assailed, but the State has never wavered in its support nor has the legislature ever failed to make the necessary appropriations. Even the cities of Auburn, Schenectady, Rochester, and New York, which have at times stood out against them, have at last waived their objections and are now coöperating in the attempt to perfect the question papers and to make them a stimulus to the teacher and student and a genuine test of good teaching and sound scholarship.

In recent years there has been growing up a conviction that these examinations were being pushed too far, that they be-

gan too early in the course and that they were too frequent and too numerous. To remove all grounds for such adverse criticism, the number of annual examinations has been reduced from three to two, preliminary examinations for admission have been made optional, and the schools are now required to make use of the examinations only in the last two years of the course.

To secure the sympathetic coöperation of the schools and colleges and to make the examinations more responsive to educational progress, a State Examinations Board has recently been organized consisting of college presidents, city superintendents, secondary school principals, and officials of the Education Department. This Board has appointed 16 committees to make question papers for the State examinations, each committee being made up of a secondary school teacher or principal, a college teacher, and a representative of the State Department. This reform system of procedure is now in full operation, and a serious and scientific effort is being made to evolve a system of examinations that shall be a veritable help and not a hindrance to the schools.

This paper is intended to be an exposition, not an argument; an attempt to explain, not to justify, a complex and highly centralized system of secondary schools. If our local boards of education were all qualified for their duties, if our system of education were everywhere clearly defined and well organized, if our superintendents, principals, and teachers were uniformly scholarly, mature, skilful, conscientious, courageous, and well paid, there would be much less need of State inspection and State examinations.

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VIII

DISCUSSIONS

DOES TEACHING REPEL MEN?

To the Editor of the EDUCATIONAL REVIEW:

My friend, Mr. Bardeen, in his article entitled "Why teaching repels men," is sure that a reasonably long experience as a teacher unfits a man for business. It is related that one of the Apostles failed when he attempted to go into business, and it is a matter of history that General Grant and General Sherman both met with disastrous failure in the business world. Just to refresh Mr. Bardeen's memory, however, I desire to call his attention to the success in the business world of Mr. Aaron Gove, for more than thirty years Superintendent of Schools in Denver. As much can be said for Mr. Forshay, recently Superintendent of Schools in Los Angeles, Cal.; of Mr. Louis Parkhurst, Principal of the High School at Winchester, Mass., now the financial head of Ginn & Company; of Mr. O. M. Baker of Springfield, formerly a Grammar School Principal in Milwaukee; of Mr. Delos R. Haines, formerly a Grammar School Principal in St. Louis; of Mr. Frank Plummer, formerly Principal of the High School in Des Moines; of D. H. Armstrong of St. Louis, a Grammar School Principal, political leader, United States Senator; of Mr. Spaulding of Haverhill, formerly Principal of the High School, now a very prosperous shoe manufacturer; of Mr. Parker of Lynn, formerly a Grammar School Principal, now a very successful shoe manufacturer; of the present Superintendent of the Taunton Locomotive Works, formerly Superintendent of Schools at Taunton. The world knows of the fame and success of Messrs. Thompson and Houston, of the Thompson & Houston Electric Company, both eminent teachers and executive school officials in Lynn and Phila-

delphia respectively; of Professor Hill of Brown University, who made a fortune in Colorado and served for many years in the United States Senate; of Professor Marsh of Harvard University, who resigned to take hold of a large commercial enterprise; of Professor Avery of Cleveland; of Mr. H. C. Speer, State Superintendent of Kansas; of Professor Bell, of telephone fame; of T. D. Fitzpatrick of Salina, Kan.; of John E. Kimball of St. Louis, Mo., and Newton, Mass., now a banker; of Guy Benton, who went from the Superintendency of Schools at Fort Scott into the business world, making a success, afterwards being called to the presidency of Miami University; of Leigh Hunt of Iowa, Seattle, Korea, the Soudan.

In New England, Pennsylvania, and the West there are so many pronounced successes in the world of business among men who have been successful teachers that to merely catalog their names would be a toilsome task. The above names, however, taken casually from my own personal acquaintance, it strikes me, give a severe jolt to Mr. Bardeen's theory. It does not appear to me, notwithstanding Mr. Bardeen's statistics, that there is any evidence to show that men are ceasing to go into the teaching profession any more than they are into any one of a dozen professions or businesses that might be mentioned. The broadening of the plane of human endeavor during the past twenty-five years has created opportunities, each of which has claimed from the ranks of eligible young men so much material that the older lines of employment have been apparently slighted.

The president of a Street Railway Company recently assured me that during the last ten years men were not seeking employment from his company to the extent that they did formerly, and that a marked deterioration was noticed by him in the character of the applicants who presented themselves for employment as motormen. The same criticism comes from employers of salesmen—indeed, from almost every field of human endeavor. Analyzed, this expression from the side of employers merely means that the demand for high-class material is greater than ever and has run far

ahead of the supply turned out by the schools and by the world.

I take it, too, that Mr. Bardeen's specific indictment is one that is applicable to any other calling. Any occupation where a man does not own his own business, and does not have ample capital with which to handle that business, is, in Mr. Bardeen's sense, a hireling occupation. It has long since been accepted as axiomatic that there is no independent man so far as the world is concerned. The Emperor of Germany is not independent; the Czar of Russia is not independent; the President of the United States is not independent. It is also one of the marked phenomena of this age that failure in any employment, even that of teaching, is no longer a bar to successful employment and the achievement of high success in that employment after such failure.

I have never lived in a community where the teacher was looked down upon by the community, or where teaching was looked down upon. The most influential man in the State of Massachusetts is President Eliot. The most influential man in the State of Indiana is H. B. Brown, of Valparaiso. I know of dozens of men, living in as many different states, of whom it may be said that their influence in those states upon any subject that they chose to exert that influence, is second to the influence of no man in any other profession.

The teacher has not readily drifted into political life while occupying a more or less prominent place in the service of education, but I have in my mind six prominent schoolmen who have been elected to serve in the State Senate—to serve as mayor, as sheriff—while occupying prominent positions, and many others who would have been nominated and elected had they consented to permit the use of their names. It is a matter of common notoriety that one of the most gifted of our college presidents declined very recently the nomination as governor of one of our greatest States. It is not so very many years ago that President Eliot was offered the management of a large manufacturing corporation at a salary vastly greater than that he was receiving. It goes without saying to any one who knows Denfeld of Duluth, Heeters

of St. Paul, Martindale of Detroit, Cooley of Chicago, Pearse of Milwaukee, Blodgett of Syracuse, Brooks of Boston, Brumbaugh of Philadelphia, Kendall of Indianapolis, Evans of Georgia, Phillip of Alabama, that each and every one of them would make a distinct pronounced success in the management of any business enterprise. With a Justice of the Supreme Court of the United States, who has served as a city superintendent and president of the State Teachers' Association; with a half-dozen United States Senators who have been principals of high schools and superintendents of schools, and the upper stories of many professions crowded with men who have achieved success as teachers, it is easy to predict that the same story will be chronicled twenty-five years from now of the young men who are now engaged in the profession of teaching.

Some one asked Max O'Rell why he did not write up the habits and peculiarities of the best people of the United States and the best people in England and the best people in Germany, instead of devoting his time and attention to the foibles and weaknesses of the lower classes. The same thought comes into my mind relative to Mr. Bardeen's comments upon the manners of teachers. Good manners belong to no age and to no clime, certainly not to any profession or to any type of business man. It is only necessary to look around us to settle that question once for all. My experience in meeting teachers has not been so extensive as that of Mr. Bardeen, but the most capable and brilliant young men that I have met in the last ten years have been those that were engaged in teaching and those that were coming into the profession of teaching. As I think of twelve to fifteen of these young men, located in Boston, New York, Missouri, Michigan, I am satisfied that their ability, tact, personal power, manners, would delight even Mr. Bardeen.

Mr. Bardeen's interesting story relative to Colonel Sprague and the shoemaker treasurer does not belong to any one phase of human endeavor. George III and Louis XIV have made similar comments. The mere literary man has given us many instances of his unhappiness in consequence of contact

with his publisher. Every merchant, in his relation with his customers, experiences such humiliation, if he so desires, every day of his life. Even senators, and congressmen, and presidents, and kings are more or less jarred at times when the common man who pays, or thinks he pays, rises in his wrath or becomes self-satisfied with his power and opportunity.

FRANK A. FITZPATRICK

BOSTON, MASS.

THE USE OF EDUCATIONAL BIBLIOGRAPHIES

To the Editor of the *EDUCATIONAL REVIEW*:

For several years I have been able to derive such profit from one feature of the *EDUCATIONAL REVIEW*, that I feel disposed to describe a device which may prove to be helpful and suggestive to other readers of the *REVIEW* working in the field of education. In view of the immense volume of educational literature now issued each year, the question of adequate indexing and classification becomes an especially important one for all general students, as well as for those engaged in the various specialized lines of educational activity. Card catalogs for bibliographical materials are naturally employed today by all those who are economical in the expenditure of their time and energy. The mere mechanics of making a satisfactorily complete card catalog, however, necessitates such eternal vigilance and involves such an amount of manual labor that even the conscientious and industrious worker is apt to become discouraged and neglectful, and he who hesitates is lost in the tangle of current production. This, too, in spite of the numerous indexes of periodical literature and bibliographical guides.

When the *EDUCATIONAL REVIEW* began some seven or eight years ago to publish an annual bibliography of educational literature, it rendered extraordinary assistance to all students and progressive teachers. Mr. Wyer and Miss Lord, the makers of this bibliography, notwithstanding its incompleteness and inadequacies at several points, are deserving

of the appreciation of all who are interested in the contemporary development of educational thought and practise. As the years have gone by, and as the number of the issues increased, the difficulty of making economical use of the several bibliographies as a *single* tool was bound to become more and more evident, especially to those engaged in study and investigation along particular lines, and who desired to get into immediate touch with the appropriate periodical and other current literature. To supply a personal need, I have made use of a device for consolidation and selection which seems fully worth the small expenditure of time and money required. I describe as briefly as possible.

At the time of the appearance of the annual bibliography of educational literature in the EDUCATIONAL REVIEW, it is my custom to purchase *two* reprints of the bibliography. A pair of newspaper shears enables me very quickly to make a clipping of each of the entire number of references. These, when pasted on library catalog cards, provide me at once with a fairly complete and easily accessible bibliography of the educational literature printed in English during the preceding year. The cards are arranged alphabetically according to an individual subject plan which in general is based upon decimal classification, followed by the printed bibliography. The whole process consumes a scant half day, including the placing of the cards in their proper places and the removal of those cards containing references, either antiquated or valueless. Of the latter, naturally there are perhaps many not detected, yet my experience has proven that it is a good principle of action to consider everything of *some* value until a satisfactory demonstration to the contrary is had from personal consultation.

In this connection, it may not be amiss to suggest the very great present need and desirability of having, either as a separate bibliography, or as a part of the one published at present by the EDUCATIONAL REVIEW, some complete analysis and classification of the more important current European literature upon education. Perhaps this might become one of the newer valuable activities of the United States Bureau of Edu-

cation. As the study of education from a scientific and professional point of view becomes more widespread, just so much greater will become the need for such a bibliography of foreign educational literature.

EDWARD C. ELLIOTT

UNIVERSITY OF WISCONSIN

[In addition to the bibliographies of which Professor Elliott speaks, many readers of the EDUCATIONAL REVIEW have found the classified index to volumes 1-25 inclusive, issued in 1904, an indispensable aid in studying current educational problems.—EDITOR.]

IX

REVIEWS

The philosophy of Friedrich Nietzsche—By HENRY L. MENCKEN. Boston: Luce & Company, 1908. 325 p. \$2.00 net.

Unfortunately we do not know who Mr. Mencken is. Neither his title page, his introduction, not yet *Who's who*, gives any trace of him. Nevertheless, he has written one of the most interesting and instructive books that has come from the American press in many a long day. Mr. Mencken can write. In addition, he has something to write about. The extraordinary intellectual anarchist whose personality and view of life he undertakes to describe, was in many ways a typical product of the intellectual and moral break-up which has been going on for four hundred years, and which gained greatly increased velocity in the latter half of the nineteenth century. The story of Nietzsche's life and intellectual development is told simply and attractively. The presentation of Nietzsche's philosophical teachings is both intelligent, intelligible, and highly amusing. Mr. Mencken, while sympathetic with his subject, is not an unreasoning partisan. His own light touches are quite charming, and his editorial impertinences are often more delightful than Nietzsche's astonishing intellectual impudence.

Mr. Mencken views Nietzsche *sub specie æternitatis*, as Spinoza would say. He accepts him as a philosopher of the rank of a Plato or a Descartes, and discusses his views of life and man with complete seriousness. The fact that Nietzsche has past into the popular consciousness by many avenues is indisputable, but it is none the less amusing to have Mr. Mencken point to "the ubiquitous Mr. Roosevelt" and "the frank and sportive Mr. George Bernard Shaw" as two of Mr. Nietzsche's most eminent disciples. The following paragraph will illustrate Mr. Mencken's method and style:

"Mr. Roosevelt has a pew in a Christian church, but his whole attitude of mind is essentially and violently unchristian. If you don't believe it, compare *The strenuous life* and the Sermon on the Mount. Is it possible to imagine two documents which say 'Nay!' to each other more riotously, vehemently, and unmistakably?" (p. 272).

Another of Mr. Mencken's illustrations of the wide influence of Nietzsche is this:

"The ideas of Nietzsche are dominant in the German universities, and have colored the whole stream of German thought. From Leipsic and Heidelberg they journey to London and New York and bob up in the weeklies and reviews. And out of the *Spectator* and the *Saturday*, the *Independent* and the *North American*, they are translated into the vulgar tongue—with reservations and emendations—and so become leading articles in the more anarchistic and discontented section of the daily press. Thus, after a long voyage and many hardships, they impinge upon the intellects of those meditative Anglo-Saxons who brave the elemental furies and the laws of political economy from their benches in City Hall Park or their inns along the Mile End Road. And that is one way in which Nietzsche reaches the great plain people of America and England. The porridge runs distressingly thin by the time it gets to them, but the flavor, tho faint, is still there" (p. 288).

This is not the place for an elaborate discussion of Nietzsche's teachings, but we have no hesitation in saying that no intelligent person who wishes to read an extraordinarily interesting and amusing book which deals with real matters of serious import, and which throws light upon a whole host of current tendencies, will overlook this book.

Experimental psychology: A manual of laboratory practice—By EDWARD BRADFORD TITCHENER. Volume II, Quantitative experiments. Part I, Student's manual. xli+208 p. \$1.00. Part II, Instructor's manual. clxxi+453 p. \$2 50. New York: The Macmillan Company, 1906.

These two volumes form the sequel to Professor Titchener's earlier two on qualitative experiments in psychology. Taken together, the series forms what is without doubt the most thorough and valuable course in experimental psychology to be found

in any language. The *Student's manuals* contain principally laboratory directions, broadly interpreted, with valuable advice to the student as to methods of work. The *Instructor's manual* provides, first, a sort of "key" to the student's manual, putting the instructor in the way of meeting the difficulties of the experiments, and of appreciating the bearings and the literature of the problems attacked. The manual will be found suitable for use by many who have thoro courses to give in experimental psychology, and exceedingly valuable for reference by many teachers of the subject who, either from lack of opportunity for giving so painstaking a course, or from a preference for their own methods of presentation, which may not agree with those which serve so admirably in the author's hands, are unable to follow the exact lines laid down here. The full and careful description of apparatus, the criticism of methods, the abundant references to the literature, all go to make the book indispensable to teachers of psychology.

The quantitative work is introduced, first, by a preface to the student, to serve as a means of transition from the qualitative style of experiment to the quantitative; and, second, by an introduction on the conception of mental measurement. According to the author's view, if we are to have a quantitative psychology, we must be able to measure some sort of conscious event; yet he does not agree with Fechner that we can measure the individual sensation; what can be measured is the distance between sensations. This point of view is presented with considerable skill to the student, while, in the *Instructor's manual*, the ground is fought over step by step, largely in quotations from the authors who have taken a hand in the development of the question. The way in which the personalities of these authors are made to stand out, the cheerful and somewhat gossipy style, help to carry the reader thru what is at best rather a tedious matter; but it must be feared that the final impression left on any but the most attentive and discriminating reader will be rather confused. One wishes that the author might take the matter into his own hands and show us "what is what." But this is clearly far from

his intention. He wishes to provide a guide-book, and as a Baedeker is not meant to discourage travel, so the author does not wish to offer a substitute for the reading of the original sources, but rather to stimulate thereto.

The experiments included in the course are grouped under four heads: first come a number of preliminary experiments, designed to introduce the student gradually into the difficulties of this sort of work; here are determinations of the lowest and highest audible tones, the least perceptible pressure, and some of the simpler demonstrations of Weber's law. Then follows the main part of the course, which consists in a description of the "psychophysical methods," with one or two applications of each. After that, the reaction time experiment, the technique of which is gone into in detail; and finally, an experiment on the perception of time. It will be seen that the choice of subjects for experiment is rather narrow. The author's contention is that all that can be hoped for, from a first course in quantitative psychology, is some mastery of the *methods*; valid results can not be expected within the time allowed. Therefore, it is best to take those parts of the subject in which the methods have been most thoroly developed, even tho these may not possess the most intrinsic interest, nor be specially fruitful of psychological insight. This narrowness of the subject-matter limits the usefulness of the book considerably, except for those who are to become specialists in psychology, for whom nothing perhaps could be more desirable than just such a course in the oldest and hardest worked, even tho the driest, part of the subject. But for others, if any such are to be encouraged to take a course in quantitative psychology, it is a pity not to get in touch with results of interest, if possible; and at the present day it is possible, as the author does not fail to state. A textbook, as the doorway to a science, not only opens the door to certain parts of it, but also, by excluding others, closes the door to them; and it is to be feared that this book, in many hands, will be the means of shutting the door on some of the most important parts of recent psychology.

The book is a mine of references to the literature of the

topics which it covers, and of some others which are cited as further illustrations of quantitative psychology. To glance at the author index, one would think the book to be also a mine of information; but this it is only to a moderate degree. These numerous references to authors correspond, in the text, usually to simple volume-and-page citations. The aim of the book, as has been indicated above, is the study of methods, not of results; and comparatively little account will be found of the results gained by the authors whose works are so frequently referred to. American writers are given almost disproportionate attention, to judge by the number of references; thus, there are over two hundred references to five of the leading American psychologists; but the reader who looks these up in the text, in the hope of familiarizing himself with the work of our leading psychologists, will be disappointed: few of the passages will tell him much about their work. There is a disproportion between the amount of information afforded regarding them and the amount of destructive criticism. It appears that the author has taken this opportunity to give utterance to such criticisms as have accumulated in his notes regarding his American colleagues. The aim of the book is not appreciably furthered by most of these criticisms, some of which are, indeed, in their present connection, rather weak and trivial. The author's reason for adopting so largely a controversial style is perhaps, in part, that "the average reader enjoys controversy" (p. cxv), and partly that he feels it his duty to counteract the tendencies of some of our countrymen, who, because of their authority, have exercised perhaps an undue influence on American students (p. cxvi, 185). All in all, while the book possesses great value, it is a pity that the author, with his wide learning, should not have put into it a little more psychology.

R. S. WOODWORTH

COLUMBIA UNIVERSITY

Home, school, and vacation. A book of suggestions. By ANNIE WINSOR ALLEN. Boston: Houghton, Mifflin & Co., 1907. 220 p. \$1.25 net.

When the educational millennium arrives, then, as Plato says of kings and philosophers, shall parents become school-teachers,

or school-teachers have the spirit and power of parents, and books like Mrs. Allen's may not be needed. But in our time parents and teachers often find themselves misunderstanding and contending; and, like other opposite groups bent on a common object (labor and capital for example), the more they do confer and arbitrate their differences, the more differences they find to arbitrate. To such the ingenious suggestions of Mrs. Allen's opening chapters, "Parents and expert," "The nature of schooling," will bring comfort, and the hope of a happier mutual understanding. This is the best of Mrs. Allen's book. For to assess properly the respective values of home and school, and to decide truly the duties of parent and expert, brings us nearer to the answers to the practical and uncomfortable problems in present-day education that we find so insoluble.

It would not be just, however, to the intention of the author, or the perspective of the book, to limit our approval to these chapters. Mrs. Allen calls her work "A book of suggestions," and the range of her interest is so wide that she has offered suggestions on nearly everything in the world, at least everything in the teachers' and parents' world. Her collection of maxims, adages, theorems, and recipes is most impressive. Naturally each reader will find her pages vary very much in value to him. But there are qualities which all will admire on all her pages—the sanity of her judgment, the sincerity of her feeling, and the evidence visible everywhere that the writer has gathered her conclusions from an experience unusually rich and varied.

The book is in form not very symmetrical; the author's systematizations are unsatisfactory, and the conclusions do not always follow from the premises. This is not a very important matter. We could, in fact, spare a good deal of these reasonings. After all we have read of late years, in the attempt to base the practise of education on systematic thinking about education, all of us, both parents and teachers, are nowadays getting ready to take a holiday from system. Pragmatism is our philosophy now, at least in education. It is the "cash values" of the teaching of children, in God's

market or man's, that interest us more than abstract propositions.

What we shall profit by in Mrs. Allen's book, then, may not be the author's systematic arrangements, nor her more elaborate arguments; but the honeyed wisdom she has gathered from her own work, to sweeten ours. Teachers and parents will find pleasure, for instance, in her chapter on "Pedagogic theory," not because she has made exhaustive studies on the theory of education, but because she has collected so fine a set of laboratory specimens of the truisms and the falsisms which haunt the steps of educators, and has showed them up for what they are. What could be better than her thoughts about "Adolescence" or "Racial re-capitulation" (that bogey of today's pedagogy), clothed, as they are, in language of pungent directness?

On the shelf, where teachers or parents keep near at hand their more readable books on education, Mrs. Allen's book may claim a sure place. It is to be welcomed cordially by all her many friends; it will make many more friends for the causes she defends and represents so well.

J. G. CROSWELL

NEW YORK

La clarté française : L'art de composer, d'écrire et de se corriger—By ANTONIN VANNIER, Professeur de lettres et de langues vivantes. Paris : Fernand Nathan, 1908. xix + 366 p. 3f. 50c.

The excellence of structure and precision of phrase which are commonly recognized characteristics of French style make it natural to suppose that American teachers might profit by a study of French methods of teaching composition. These merits, it is true, are to some extent inherent in the language and like the language a reflection of the national genius, and they are the result also of a classical tradition which has left its mark on French prose as it never could on English; yet it is in the schools that these influences begin to assert themselves, and it is there that the "regard for the language as a work of art," which Brunetière makes a part of the heritage of every Frenchman, is first cultivated.

Judging, however, from M. Vannier's textbook in rhetoric

and from others of which it is fairly typical, one must conclude that helpful suggestions are to be gathered, if at all, from the methods of the classroom rather than from the material in the texts. The American contribution to rhetorical theory has been almost entirely in the matter of structure, and so far as theory goes ours is in this respect at once simpler and more complete than the French. The principles of unity, coherence, and emphasis, threadbare as they have become with much use, are nevertheless fundamental laws of thinking as well as writing; yet these principles the French have never definitely formulated, and never applied to the sentence and the paragraph as well as to the larger units. Indeed, in *La clarté française* the paragraph as a structural element is scarcely mentioned, nor is the sentence, except in respect to logical order, regarded from the point of view of structure. Surely the paragraph, tho nowadays we perhaps hear too much of it, deserves attention as something more than the schoolboy's "gob of sentences."

Still the French get results. Is their regard for these principles, then, a matter of instinct? To some extent perhaps; but the principles are also implicit in their rigid insistence on the plan. Thus M. Vannier, tho he gives only thirty-three pages to structure or composition proper, takes most of this space to show how the plan grows out of the first vague thoughts on a subject, and the finished essay out of the plan. The plan is insisted upon. And in the French schools not only is the subject assigned—and of late years with appropriateness and great ingenuity—but in the first stages of high school work the plan as well, with the requirement that the student keep carefully to the order and proportion thus indicated. Mechanical this is, but just because it is so, it would seem the quickest and simplest means of giving students a sense of form.

The second and major portion of the book has to do with faults of diction and faults of style, ninety-two pages on the first and one hundred and twenty-two pages on the second. The space devoted to these matters, it should be said, is in part owing to the fact that the writer is proceeding on a

theory. For the beginner, he argues, counsel regarding expression must be largely negative. But since such cautions are merely a hindrance in the preparation of the first draft, it is in the revision that the student should first give his attention to details. This portion of the book, therefore, is planned for the benefit of the student in the correction of his first draft; and it is chiefly by such careful correction of faults that the student will learn to avoid them. This method, which the writer develops more fully and clearly, appears sensible and indeed scarcely novel; its successful application in America, however, would require an attention to the revision and a regard for details of phrasing which our students and teachers have seldom been willing to give. In his book, at all events, M. Vannier's method leads to nothing more than an extended catalog of faults under familiar headings. Writers may err against clearness, precision, conciseness, naturalness, symmetry, harmony, variety. Tho one might question the principle, or lack of principle, behind this classification, there is otherwise little that is objectionable and little that is new.

One might, however, question the proportion of attention given to this whole matter of phrasing. If in the past the French have wisely emphasized the first two of the old rhetorical divisions, invention and disposition, rather than elocution, have we not of late years bettered their instruction? The traditions of our literature and the conditions affecting language in America have hindered us from getting as good results; but even so, is it rash to suggest that the rank and file of our writing today, as a result of the widespread practise of composition in our schools and colleges, is beginning to show a regard for form, if not a clearness and accuracy of expression, which may compare even with the French?

ALLAN F. WESTCOTT

COLUMBIA UNIVERSITY

Classroom management—By WILLIAM CHANDLER BAGLEY, Superintendent of the Training Department, Oswego, New York, State Normal and Training School. New York: The Macmillan Co., 1907. 315 p. \$1.25 net.

In this, his second book, the author of *The educative process* presents in a systematic manner the more important

principles and precepts which may be expected to aid the prospective teacher in the mastery of the technique of classroom management. The data for his book were gathered, he says, from personal experience, from the observation of the work of successful teachers, from textbooks and treatises upon the subject, and finally from inductive reference from the successful concrete practise to the underlying psychological principles.

This reference of successful practise to sound psychological theory has been the means, in Dr. Bagley's hands, of the making of a sound and systematic treatise, and herein, in the reviewer's opinion, lies its conspicuous merit. The factors of classroom management are, in accordance with the fundamental antithesis between habit and judgment developed in his *Educative process*, subdivided into two main groups, viz.: the "routine factors" (Part I) and the "judgment factors" (Part II), both preceded by an introduction which indicates how the problems of classroom management necessarily arise from the attempt to train children in the mass.

Part I is devoted to the task of applying the fundamental psychological law of habit-building to all phases of school work which can be subjected to routine,—to such phases, therefore, as the passing of lines, fire-drills, the distribution and collection of wraps, books, writing materials, etc., the orderly arrangement of books and desks, neatness of written and blackboard work, regularity and punctuality of attendance, correct posture in reading and writing, personal cleanliness, etc. The importance of the first day at school is emphasized in a special chapter (ii), and the prevention of waste in the daily program likewise receives special treatment (ch. iv). Argumentative discussion centers about two problems: first, the relative advantages and disadvantages of routine and mechanism in school organization; and, second, the advantages and disadvantages of corporal punishment and other forms of penalties for infringement of order and discipline. While these discussions may be said to present fairly both sides of these important questions, one can not fail to detect a strong personal bias in favor of an atmosphere of severity and

rigor in schoolroom management. Those who, like the present writer, have seen splendidly successful results attained in a radically different atmosphere, characterized by a minimum of mechanical organization and a minimum use of penalties, will doubtless be inclined, when the book is used in class discussions, to shift the emphasis in those chapters which deal with order and discipline and with penalties. Bagley's entire argument in this connection is written from the standpoint of the adult, not from that of the boy. Directions for self-government are found only in an appendix; the directions in the text may seem to some to apply rather to the training of mules than that of children. There is such a thing as freedom without anarchy.

In treating hygienic conditions (ch. vi) Bagley very properly places the ultimate responsibility for the formation of hygienic habits upon the teacher. No mention is made, possibly for lack of space, of the necessity of reseating pupils who suffer from defects of eye and ear, nor of the necessity of conducting suitable tests for the detection of such defects. Exception may be taken to the statement (p. 82) that practically all desks permit an upright position for the body and provide a suitable rest for the back. Exception may also be taken to his recommendation of the use of ink "from the earliest possible moment" (p. 85). As Shaw has pointed out, it is better in the earlier grades to substitute wax crayons or soft pencils for ink.

The "judgment factors in classroom management" (Part II) embrace all those problems that can not be reduced to routine. The brunt of this Part is a discussion,—easily the best that the present writer has seen,—of the application of the psychology of attention to the problems of interest, with a special discussion of various forms of incentives. The whole discussion hinges upon a threefold classification of the forms of attention as passive, active, and secondary passive,—a classification first proposed by Titchener in his *Primer of psychology* and also utilized by Bagley in his *Educative process* (ch. vi).

Following this discussion appears a chapter upon the technique of class instruction which has the merit of calling par-

ticular attention to the fundamental importance of the assignment as a means for the prevention of waste during the study period,—a principle which is all too frequently unappreciated by the embryo teacher.

The Batavia system is given an unusually strong indorsement (ch. xiv) because the author is convinced that it “makes good” in actual test. The conditions for the successful application of this system are considered in detail.

Another illuminating chapter, which should prove of great assistance to the teacher, deals with various methods of “testing results,”—both the results of habit-building as prescribed in the earlier sections of the book and the results of formal instruction in knowledge. Possibly more specific attention might have been called to the advantages of so arranging work that pupils may be allowed to compete with their own previous records.

Three miscellaneous chapters complete the volume, and treat of the disposition of the teacher's time, the teacher's relation to other school officials, and the ethics of schoolcraft, respectively.

Appendix A gives suggestions for the study of classroom technique thru observation; Appendix B briefly describes the “School city” and outlines a charter that may be used for the establishment of such a “city”; Appendix C contains the well-known “Springfield questions in arithmetic” which indicate what efficiency ninth grade pupils displayed in 1846: Appendix D reproduces in thirteen plates a series of papers produced by pupils in the elementary grades, these being here inserted to suggest the quality of written work that may be expected from pupils in the grades indicated: this illustrates concretely the value of proper standards of work, as advocated in the earlier portions of the text (ch. xv).

The volume is supplied with an excellent analytical table of contents, and each chapter is followed by references for further reading and discussion. The reviewer has found it very serviceable for work with college classes, always with the provision that the class has already obtained a general familiarity with educational psychology; without such familiarity the

treatment is rather difficult in some places, especially in the discussion of the application of attention to classroom problems.

It is safe to predict that this book will meet with success, because it deals with matters of great practical importance in the teacher's work, and deals with them in a clear and illuminating manner. As I have already intimated, it is a distinct advance over previous treatises upon school management, because it deals, not with "chicken-feed" trivialities, but with a system of fundamental principles in their concrete applications.

GUY MONTROSE WHIPPLE

TEACHERS COLLEGE

THE UNIVERSITY OF MISSOURI

It is a satisfaction to see a reprint in admirable form, with good type and on good paper, of so thoroly standard a work as Ranke's *History of the Popes*. These volumes are large enough for the library shelf and small enough to be readily held in the hand. The book is one which no scholar will leave unread. (London: George Bell & Sons, 1908. 3 vols. 548, 572, 500 p. 3s. 6d. each.)

No more timely or important treatment of the problems which now confront the American people has appeared anywhere than will be found in the volume entitled *The currency problem in the present financial situation*, published by the Columbia University Press. The volume contains eight addresses delivered at Columbia University during the past winter by authorities of the first rank in matters of banking and currency, with an Introduction by Professor Seligman. In these pages will be found a clear and rational analysis of the great crises of 1907, together with innumerable practical suggestions as to the future. (New York: Columbia University Press, 1908. 170 p. \$1.25.)

Krapp's *Elements of English grammar* is a new and very satisfactory treatment of a difficult subject. It is intended for pupils who are making a connected study of the elements of

grammar for the first time, and it is as good a practical textbook of the subject as has come to our notice. (New York: Charles Scribner's Sons, 1908. 275 p. 80 cents.)

It was a happy idea to make out of the writings of Miss Louisa M. Alcott a *Louisa Alcott reader* to be used as a supplementary book in the upper grades of elementary schools. The contents of this book will never fail to interest the normal American girl. (Boston: Little, Brown & Co., 1908. 222 p. 50 cents.)

We have received from the publishers *The schoolmaster's year book and directory for 1908*, which is an invaluable reference book of secondary education in England and Wales. This is the sixth annual issue of a volume which, for the school and college library or for the table of the student of school administration, must rank with such books as *Who's who*. (London: Swan, Sonnenschein & Co., 1908. 1,054 p. 7s. 6d.) Another book of similar type, but concerning itself with somewhat different group of institutions, is the *Public school year book*. (London: Swan, Sonnenschein & Co. 685 p. 3s. 6d.)

Dr. Benjamin Rand, of Harvard University, has prepared a very useful series of selections illustrating the progress of modern philosophy from Bruno to Herbert Spencer. The book is a valuable one for the college student to have at his elbow, for the selections are carefully made and the really representative names of the period are given a chance to speak for themselves. For college classes in philosophy, the book will have much value. (Boston: Houghton, Mifflin & Co., 1908. 740 p. \$2.50 net.)

A somewhat forced and blunt crudeness of style makes the reading of *More* rather difficult. The title, which itself is bizarre, is explained as covering "a study of financial conditions now prevalent." The author's purpose is commendable,

and many of his observations are just and useful, but we can not think that he has been successful in making either a readable or very helpful book. (Boston: Little, Brown & Co., 1908. 246 p. \$1.00.)

A beautiful piece of textbook making, and in addition a book of real worth, is Professor Salisbury's *Physiography*. The book is intended for secondary school use, but it is so thoro and so very well illustrated that it will be found a useful and helpful book of reference for the library. (New York: Henry Holt & Co., 1908. 531 p. \$1.50.)

Alfred M. Hitchcock's *Words and sentences* is in part a reversion to the old and useful type of textbook of English. Teachers in secondary schools may well use it in connection with composition work and with the study of formal grammar. (New York: Henry Holt & Co., 1908. 89 p. 35 cents.)

The serious study of the French classics will be promoted by the use of the very excellent volume entitled *La comédie classique en France* arranged by Edith Healy. The selections are from the best known grammars of the classic period, and the vocabulary is full and accurate. (New York: The American Book Company, 1908. 283 p. 50 cents.)

A simple retelling of some of the most familiar of Grimm's tales is contained in *German stories retold*, by James R. Kern and Minna M. Kern, of De Pauw University. (New York: American Book Co., 1908. 95 p. 30 cents.)

Students of German will enjoy the chance to use the pocket edition of *The Vicar of Sesenheim*, being extracts from Goethe's *Dichtung und Wahrheit*, by Professor Nichols, of Simmons College. The idyl itself is a beautiful one, and this treatment leaves nothing to be desired. (New York: Henry Holt & Co., 1908. 164 p. 35 cents.)

X

NOTES AND NEWS

The Carnegie Foundation

The daily press has recently chronicled the gift of \$5,000,000 to be added to the \$10,000,000 of the Carnegie Foundation for the Advancement of Teaching, for the purpose of including within its benefits institutions of learning under State control.

In his original letter of gift, in which the donor announced his purposes in the creation of the Foundation, State institutions were not included as beneficiaries on the ground that "State and Colonial Governments which have established or mainly supported Universities, Colleges or Schools may prefer that their relations may remain exclusively with the State." They were not, however, like sectarian institutions, formally excluded, and the question was left to the trustees to determine in the light of experience. Representatives of the National Association of State Universities were subsequently invited to present a statement of their attitude in the matter, and a conference was arranged with the trustees of the Foundation in November, 1906, when the inclusion of these institutions was urged on a common basis with the other non-sectarian institutions of the country. Ultimately the matter was submitted to Mr. Carnegie, who, after reviewing the conditions under which the fund has been administered, replied, in part, as follows:

I beg now to say that should the Governing Boards of any State University apply for participation in the fund, and the Legislature and Governor of the State approve such application, it will give me great pleasure to increase the fund to the extent necessary to admit them. I understand from you that if all the State Universities should apply and be admitted five millions more of five per cent. bonds would be required, making the fund \$15,000,000 in all.

This increase of the fund by one-half will at once permit the inclusion under the retiring allowance system of the many tax-supported universities, in so far as they conform—as the majority of them do—to the educational and administrative conditions imposed by the trustees of the fund.

The extension of the benefits of the Foundation to these institutions gives the whole matter a national character, which in the original formulation it did not possess, since under the circumstances of development of this phase of education the East, with its public tho privately endowed institutions, was mainly the beneficiary and the West and the South were largely excluded. The great tax-supported institutions of these parts of the country are, however, as much as any, integral elements of a national system of education, and in accepting the benefits of the Foundation they also accept the responsibilities of inclusion under a standard of measurement which it is incumbent upon them henceforth to maintain in common with the rest. From this aspect the widening of the scope of the Foundation is a most important step in the evolution of a national standard, which by and by will exist in America by a consensus of agreement as much as it exists in Germany at the present time by government control.

There is no inherent reason why the institutions of learning which depend for their existence upon a tax upon the people should be differentiated, from any point of view, from those which depend for their support upon private endowment. They are, in fact, as educators the same in their obligation to the community and the same in their relationship to each other and to the rest as parts of a coördinated system; the burden of responsibility of providing for their teachers is only lifted by the Foundation, in the one case, from the commonwealth, and in the other from the trustees of the endowed institution. In either case there is an extension of the influence of every institution brought under the benefits of the Foundation by thus adding to its resources and its strength. The provision of the retiring allowance system for all of these institutions is to their corps of instruction the most immediate and personal aspect of the case, but it is, in reality, not the

most far-reaching and important. Mr. Carnegie, at the end of his letter, states his conviction that the fund "must be, for all time, productive of lasting good, not only to the recipients, but to the cause of higher education." It is in this latter aspect of the matter that its great and by this recent action of the donor its added significance lies.

Eduard Zeller Professor Eduard Zeller, one of the most brilliant ornaments of the German republic of letters, and the Nestor of the German academic world, died on March 19 last, at the patriarchal age of ninety-four years. Professor Zeller, as the admirable obituary sketch in the London *Times* points out, was in himself an epitome of German research during the nineteenth century in the realms of the history of philosophy and the origins of religion. He was educated at the preëminently theological University of Tübingen, and afterwards at Berlin, where he came under the influence of Hegel. In 1840 he was admitted as a *Privatdozent* to the teaching staff of the University of Tübingen, and began those researches into the history and the basis of the Christian religion which formed the starting point of his study of the history of Greek philosophy. He was one of the founders of the periodical the *Theologische Jahrbücher*, which was inspired by the historical and philosophical methods of Christian Baur and David Strauss. The principle of historical development as applied to religion was at that time novel in Germany as elsewhere, and the only conflicts which disturbed the learned placidity of Zeller's long life were due to the opposition which he encountered from German theologians. Zeller's enterprise led him to the wider study of the intellectual development of humanity, and in particular to the intellectual history of the Greeks, in which he found the first and the crowning instance of an endeavor to solve the highest mental and moral problems by the sustained exercise of the reasoning faculty. His greatest work, *The philosophy of the Greeks in its historical development*, was mainly composed between the years 1844 and 1852, but he subsequently amplified it and embodied in it the latest results of modern

research, so that the final edition bears the date of 1902. The greater part of the book has been translated into the leading languages of Europe, and it long ago became the practically universal textbook on its subject. Numerous other philosophical and theological works followed, or rather accompanied, the publication and republication of the author's masterpiece. Such were *The history of the Christian church* (1847), *The theological system of Zwingli* (1853), *The Acts of the Apostles: their contents and origin* (1854), *State and church* (1873), *Platonic studies* (1839), *Plato's symposium*, translation and a commentary (1857), *Outline of the history of Greek philosophy*, first published in 1883, and *History of German philosophy since Leibnitz* (1873), as well as many lectures and separate studies.

In 1847 Zeller obtained the chair of theology at Berne, and in 1849 he was appointed to the same chair at Marburg. Here the efforts of his theological opponents achieved what proved for him the beneficent success of obtaining his transfer from the chair of theology to that of philosophy. In 1862 he was appointed professor of philosophy at Heidelberg, and in 1872 was transferred to Berlin, where the philosophy chair ranks as the first in Germany. He continued to teach in this university until his final retirement in 1895.

Zeller was abundantly appreciated and honored during his lifetime. He was an honorary member of numerous learned societies in Germany and in foreign countries. In 1894 the present Emperor made him a Wirklicher Geheimrath with the title of "Excellency." He had been one of the circle of scholars, artists, men of science, and men of letters who adorned the court of the first German Crown Prince and Crown Princess, afterwards the Emperor and Empress Frederick, and when their statues in marble were recently erected near the Brandenburg-gate the bust of Zeller, together with that of Helmholtz, was appropriately associated with these national monuments.

**Superintendent
Soldan**

On Friday, March 27, F. Louis Soldan, Superintendent of Schools in St. Louis, dropt dead after leaving a street car in which he had been overcome by an apoplectic attack. Mr. Soldan, who was sixty-six years of age, was one of the best known and most conspicuous leaders in the educational work of the United States. A native of Frankfort-on-the-Main, he received the best possible education there before coming to America in his twentieth year. He threw himself at once into the work of the St. Louis public schools, and rose rapidly from one post to another until in 1895 he was made superintendent. He served in 1883 as President of the National Education Association. Sound in scholarship, conservative by temperament, warmly affectionate toward his friends, and full of regard and tolerance for the opinions of others, Mr. Soldan had long since gained for himself a position of great influence among American teachers. His sudden taking off has brought to very many of them a sense of personal grief.

**Higher Education
in the State of
New York**

The Annual Report of Assistant Commissioner Rogers on Higher Education in the State of New York is a very satisfactory and informing document. Mr. Rogers does not confine himself to mere statistical exposition, but he offers very satisfying and helpful comments on the events of the year. Particularly valuable is his careful discussion of medical education, and his exposition of the development of the law relating thereto.

**The Elimination
of Pupils from
School**

We commend most unreservedly to school superintendents and other administrative officials a careful study of the recent bulletin issued by the Bureau of Education on *The elimination of pupils from school*. The writer is Professor Edward L. Thorndike of Teachers College, Columbia University, and the ground is covered in a more thoro and systematic fashion than has been the case heretofore. The main conclusions at which Professor Thorndike arrives are set out in the following

summary, but his diagrams, his statistical tables, and his array of evidence should all be carefully studied.

Professor Thorndike summarizes his findings as follows:

(1) At least 25 out of 100 children of the white population of our country who enter school stay only long enough to learn to read simple English, write such words as they commonly use, and perform the four operations for integers without serious errors. A fifth of the children (white) entering city schools stay only to the fifth grade.

(2) Of the children entering the public schools of our more favored cities over half probably never have a man teacher.

(3) Less than 1 in 10 graduate from the high school.

(4) Only about a third graduate from an elementary school of seven grades or more.

(5) Only about half have any teaching of consequence concerning the history of their own country or any other, or concerning the world's literature, science, or art.

(6) In our city high schools, for 100 girls entering there are only 75 boys. During the high school course, moreover, the boys are eliminated more rapidly, so that in the last year there are 60 per cent more girls than boys.

(7) Though Germany and France, and perhaps England, do as well as the United States in keeping every one in school until he learns the rudiments or until he reaches 13, the United States is far more successful in retaining a fair percentage for a much longer and more extensive schooling.

(8) The failure of this country to provide education generally for the wage-earners is in part atoned for by the delay in requiring youth to go to work and their retention in school till the late teens.

(9) There is an enormous variability amongst cities in the amount of elimination, such that if all cities of over 8,000 inhabitants did as well as worthy citizens, good fortune, support of education, and wise administration now enable, say, Worcester, Cambridge, Malden, or Springfield, to do, the number of children remaining to, say, the seventh grade, could be increased 40 per cent., and the number remaining to the fourth-year class of the high school could be increased over 100 per cent.

(10) The superiority of one city over another in the retention of pupils is apparently caused far more by the nature of the population than by any peculiarities in the curriculums or schemes of administration of the schools.

(11) The high schools are being recognized by parents and pupils as simply the last four years of a general course, there being so far as leaving school is concerned, no greater gap between the last elementary and the first high school grade than between the seventh and eighth elementary grades or the first and second high school grades.

(12) One main cause of elimination is incapacity for and lack of interest in the sort of intellectual work demanded by present courses of study.

Decadence

The Henry Sidgwick memorial lecture at Newnham College, Cambridge, was this year delivered by Mr. Balfour, who took for his subject "Decadence." In the course of his lecture he said that by decadence he did not mean the sort of decadence often attributed to certain phases of artistic or literary development, in which an overwrought technique, straining to express sentiments too subtle or too morbid, is deemed to have supplanted the direct inspiration of an earlier and a simpler age. The decadence respecting which he wisht to put questions was not literary or artistic; it was political and national. It was the decadence which attacked, or was alleged to attack, great communities and historic civilizations; which was to societies of men what senility was to man, and was often, like senility, the precursor and the cause of final dissolution. To Macaulay it seemed natural that ages hence a young country like New Zealand should be flourishing, but not less natural that an old country like England should have decayed. Berkeley, in a well-known stanza, told how the drama of civilization had slowly traveled westward to find its loftiest development, but also its final catastrophe, in the New World. Every man who was weary, hopeless, or disillusioned talked as if he had caught these various diseases from the decadent epoch in which he was born. But why should civilizations thus wear out and great communities decay? And what evidence was there that in fact they did? These questions, tho he could not give to them any conclusive answers, were of much more than a merely theoretic interest. For, if current modes of speech took decadence more or less for granted, with still greater confidence did they speak of progress as assured. Yet, if both were real,

they could hardly be studied apart, they must evidently limit and qualify each other in actual experience, and they could not be isolated in speculation. Weismann had definitely asked how it came about that the higher organisms grew old and died, seeing that old age and death were not inseparable characteristics of living protoplasm, and that the simplest organisms suffered no natural decay and perished, when they did perish, by accident, starvation, or specific disease. The answer he gave to his own question was that the death of the individual was so useful to the race that natural selection had, in all but the very lowest species, exterminated the potentially immortal. One was tempted to inquire whether this ingenious explanation could be so modified as to apply, not merely to individuals, but to communities.

THE STRUGGLE FOR EXISTENCE

Was it needful for the cause of civilization as a whole that the organized embodiment of each particular civilization, if and when its free development was arrested, should make room for younger and more vigorous competitors? And, if so, could we find in natural selection the mechanism by which the principle of decay and dissolution should be so implanted in the very nature of human associations that a due succession among them should always be maintained? To this second question the answer must, he thought, be in the negative. The struggle for existence between different races and different societies had admittedly played a great part in social development. But to extend Weismann's idea from the organic to the social world would imply a prolonged competition between groups of communities in which decadence was the rule, and groups in which it was not, ending in the survival of the first and the destruction of the second. The groups whose members suffered periodical decadence and dissolution would be the fittest to survive, just as, on Weismann's theory, those species gained in competitive efficiency whom death had unburdened of the old. Decadence, even if it were a reality, never acted in isolation. It was always complicated with, and often acted thru, other more obvious causes. It was always, therefore, possible

to argue that to these causes, and not to the more subtle and elusive influences collectively described as "decadence," the decline and fall of great communities were really due. Yet there were historic tragedies which did most obstinately refuse to be thus simply explained. It was in vain that historians enumerated the public calamities which preceded, and no doubt contributed to, the final catastrophe. Civil dissensions, military disasters, pestilences, famines, tyrants, tax-gatherers, growing burdens, and waning wealth—the gloomy catalog was unrolled before their eyes, yet, somehow, it did not in all cases wholly satisfy them; they felt that some of those diseases were of a kind which a vigorous body politic should easily be able to survive, that others were secondary symptoms of some obscurer malady, and that in neither case did they supply them with the full explanations of which they were in search. Consider, for instance, the long agony and the final destruction of Roman Imperialism in the West, the most momentous catastrophe of which we had historic record. Rome fell, and great was the fall of it. But why it fell, by what secret mines its defenses were breached, and what made its garrison so faint-hearted and ineffectual—that was not so clear. If there were no progress, decadence was slow; and but for what Western Europe did and what it failed to do during the long struggle with militant Mahometanism there might still be an empire in the East, largely Asiatic in population, Christian in religion, Greek in culture, Roman by political descent. Had this been the course of events, large portions of mankind would doubtless have been much better governed than they are. It was not so clear that they would have been more "progressive." Progress was with the West, with communities of the European type. And if their energy of development were some day to be exhausted, who could believe that there remained any external source from which it could be renewed? Where were the untried races competent to construct out of the ruined fragments of our civilization a new and better habitation for the spirit of man? They did not exist; and if the world were again to be buried under a barbaric flood, it would not be like that which fertilized, tho it

first destroyed, the western provinces of Rome, but like that which in Asia submerged for ever the last traces of Hellenic culture.

THE PRESENT AGE

He did not himself believe that this age was either less spiritual or more sordid than its predecessors. He believed, indeed, precisely the reverse. But, however this might be, was it not plain that, if society were to be moved by the remote speculations of isolated thinkers, it could only be on condition that their isolation was not complete? Philosophy had never touched the mass of men except thru religion. And tho the parallel was not complete, it was safe to say that science would never touch them unaided, by its practical applications. Its wonders might be cataloged for purposes of education, they might be illustrated by arresting experiments, by numbers and magnitudes which startled and fatigued the imagination; but they would form no familiar portion of the intellectual furniture of ordinary men unless they were connected, however remotely, with the conduct of ordinary life. There was another, and an opposite danger into which it was possible to fall. The material world, howsoever it might have gained in sublimity, had under the touch of science lost in domestic charm. For this mood only religion or religious philosophy could supply a cure. But for the former the appropriate remedy was the perpetual stimulus which the influence of science on the business of mankind offered to their sluggish curiosity. If in the last hundred years the whole material setting of civilized life had altered, they owed it neither to politicians nor to political institutions. They owed it to the combined efforts of those who had advanced science and those who had applied it. If their outlook upon the universe had suffered modifications in detail so great and so numerous that they amounted collectively to a revolution, it was to men of science we owed it, not to theologians or philosophers. The conclusions at which he provisionally arrived were that they could not regard decadence and arrested development as less normal in human communities than progress, tho the point at which the

energy of advance was exhausted varied in different races and civilizations; that the internal causes by which progress was encouraged, hindered, or reversed lay to a great extent beyond the field of ordinary political discussion, and were not easily exprest in current political terminology; that the influence which a superior civilization, whether acting by example or imposed by force, may have in advancing an inferior one, tho often beneficent, was not likely to be self-supporting—its withdrawal would be followed by decadence unless the character of the civilization was in harmony both with the acquired temperament and the innate capacities of those who had been induced to accept it; that, as regards those nations which still advanced in virtue of their own inherent energies, tho time had brought perhaps new causes of disquiet, it had brought also new grounds of hope; and that, whatever the perils in front of them, there were, so far, no symptoms either of pause or of regression in the onward movement which for more than a thousand years had been characteristic of Western civilization.

**Manhattan
Trade School**

The Manhattan Trade School was founded at the most serious point of industrial life where young girls are forced to labor at the earliest time allowed by law (about fourteen). The aim from the first has been threefold: (1) to improve the conditions of the young workers physically, mentally, morally, and financially, (2) to help the industries employing women by giving them skilled workers with a trained mind as well as hand, (3) to serve the country by improving conditions of labor and by helping to solve the problems of woman's work and life.

Five years ago the school started in its new field in the face of great discouragements. Employers were prejudiced against such instruction on account of the lack of success of girls trained in former technical schools. The parents of the pupils felt that they could not sacrifice themselves further than the end of the compulsory school year but must send their children into wage-earning positions. It was impossible to ob-

tain state or municipal aid and it was known that the experiment must be costly for many reasons.

During these five years the small school in a private house has become a large institution, housed appropriately in a business building. The rapid expansion shows that there was need of such instruction and also that its work is fitting for trade demands. It still holds to its original purpose of helping the girl who is forced into the market at about fourteen years of age and who is too poor to give more than a few months or a year to training. The problem of the Manhattan Trade School differs therefore entirely from the high school or other technical institutions which train girls for the practical arts for, (1) Few of the pupils have had the educational foundation of graduation from the elementary school but in most instances have come from the V, VI, and VIIth grades. (2) The poverty of the families makes it necessary that the children speedily enter a wage-earning position, consequently they are unable to give three or four years to any kind of training, even tho it promises them a more successful career and a higher salary at the end. (3) As the girl will be in trade at the age of fifteen or seventeen years with only the elements of an education, the kind of work which she can do must differ from the high school student who enters trade at the age of seventeen or nineteen with a good education. Hence the Manhattan Trade School has had to limit its work to such intelligent trade instruction as can be given in one year and result in financial benefit to the students, and it is forced to omit much which could be of real benefit in life if time were available.

The argument is often heard that such young workers should not be allowed in the market at all, as it is of detriment to them and of little service to the employers. This is freely admitted by the entire Board of Administrators, but we are face to face with an economic condition in the United States which we deplore but can not with justice leave unaided. These children must work on account of the poverty of the families, their untrained condition makes them unprepared for any specific position and they wander from one unskilled occupation to another, or, even if they enter a skilled trade, they can not

rise easily in it, and are apt to be dropt out at the first slack season. A trained worker usually remains with her trade and rises to better positions and increased salary, slowly or rapidly according to her ability. The five years past have demonstrated that a trade school can alleviate the present condition and that trade instruction can be so given that the youngest wage-earners can be fitted for definite positions in the skilled industries with a living wage on entrance and the probability of continued advance.

The former prejudice of employers against such preparation for their workrooms has changed into a large degree of confidence in the methods of the school. This has been practically shown in the demand for the services of the students, in the good wage paid them on their entrance into the market, and in their gradual rise to better positions, if they show ability and in the oft repeated statement that the trade school girls have a "head as well as a hand."

**Lord Kelvin as a
Teacher**

Of Lord Kelvin's teaching power, Professor Ayrton writes in the *London Times* most interestingly. He gives his own personal reminiscences of Lord Kelvin who, as William Thomson, was Professor Ayrton's teacher at the University of Glasgow more than forty years ago.

Of Lord Kelvin Professor Ayrton writes:

When he came into his classroom, a room festooned with wires and spiral springs hanging from the ceiling like the rigging of a ship, he had hardly given a thought to what he was going to talk about—if it were Monday morning he had just returned from staying the week end with Tait at Edinburgh, and he gave us an enthusiastic account of their talk, bubbled over with what they had been doing, was full of suggestions about it, told us how the manuscript of *Natural philosophy* was progressing.

To test the power of the Clarendon Press to publish such a book, Tait and he wrote down at random complicated equations, lines of wholly unintelligible reasoning, and then thought it would be a good joke to send out the proofs—as copies of an original paper—to various of their friends. And one day

Thomson told me, with a twinkle in his eye, "Nobody has yet found any mistakes in that paper."

Electricity was the subject of the nine to ten lectures during a particular session which I have in my mind. But the experiments generally went wrong, and Thomson used modestly to say:

"Faraday's result was so and so; mine is just the opposite. But Faraday, with inferior apparatus, divined the truth. Remember his result, not what you have just seen me obtain."

Thomson, with all his genius, all his power of advising how an experiment should be made, with all his creative originality in suggesting the details of scientific apparatus and methods, could not make the experiments with his own hands. We all dreaded his touching the apparatus which we had set up and adjusted. He was too impulsive, too full of exuberant energy.

After the apparatus was broken when he had touched it he was profoundly sorry. At that time it gave us the feeling that we were able to help him by trying experiments on his behalf. But this feeling resembled that of the calculator who helped Newton when he became too excited to finish the application of his principles to the explanation of Kepler's laws, or the feelings of the sculptor's assistant who transfers to marble his master's inspired creation in clay.

In his mathematical physics lectures—aye, even in his elementary lectures—the suggestions that he poured forth were much above the heads of the ordinary undergraduates—over one hundred in this class,—and they gained little by coming to them except a register of their attendance necessary for their degrees. For as soon as he turned around to write on the blackboard the students row by row began to creep out of the lecture room thru a back door behind the benches and steal downstairs, their bodily presence following their mental presence, which had left as soon as the reading of the roll was finished. From time to time Thomson put up his eyeglass, peered at the growing empty space, and remarked on the curious gradual diminution of density in the upper part of the lecture room.

But to those, like myself, who after receiving some scientific training had come from other countries to hear Thomson's talks, his suggestions, his buoyancy were like the rays of brilliant May sunshine following April showers. The ideas of those students sprouted as never had they done before.

The more thoughtful gazed with eyes of wonder at Thomson developing an original paper during a lecture on anything that he might be talking about, we knowing that any notes

or calculations that he might previously have made were on the back of some old envelope and left probably with his great-coat in the hall. "If you want to know what's in books go and read them for yourselves. I am telling you what is not in books," he used to remark at those lectures at the old University of Glasgow.

Among Thomson's early discoveries was the fact that it was good for students to do laboratory work. So almost immediately upon being appointed professor of physics at Glasgow in 1846, at the age of twenty-two, he "organized a laboratory corps from volunteer students," and about 1849 he "established an incipient laboratory in the wine cellar of an old professor's house," so his successor, Professor A. Gray, tells me. In my time Thomson's laboratory consisted of one room and the adjoining coal cellar, the latter being the birth-place of the siphon recorder.

Thomson openly express his contempt for a university that spent its time merely in holding examinations, as did the Burlington House University of London at that time. One day I was in his lecture room puzzling over an examination paper that he had set, when he advised me to take the paper home to my lodgings, as I should be much more comfortable there. Such a permission was an upheaval of all my ideas about scholarship examinations; so, boylike, I asked him how he would know that I should not look at books. But he only replied:

"When you bring me your answers tomorrow I shall know what you have got out of books." I expect he sent me to my lodgings partly to impress on me the important lesson that all the books that exist will not solve a new problem.

He had great belief that one of the main uses of a university was to form character. He, Rankine, Tait, and some other professors had a long discussion in his house one evening after dinner. Would he have been justified in asking that the student who had that day thrown a paper dart at the black-board when he himself was writing on it should declare himself?

Thomson thought no! As a matter of fact the student owned up. He was asked to absent himself from the class, but on the other students pointing out that he would lose his degree by not attending, Thomson readmitted him.

Thomson always began his nine o'clock lecture by devoutly repeating the General Confession from the Church of England morning service. I do not know whether the other Glasgow professors did.

There was never the slightest interruption, the Scotch stu-

dent is naturally reverent, besides the prayer was said by Thomson with such fervor and impressiveness that the most stanch freethinker, the most frisky dart-thrower, could not but respect the convictions of the teacher whom they all loved and honored. They might not be able to follow the lecture, but the affecting appeal which preceded it touched their hearts.

After some reminiscences in connection with Thomson's work on the early transatlantic cables, Professor Ayrton concludes :

Thomson has been called an engineer. In creative power, yes—a great engineer. But not in the '40s, nay, even in the '60s, could a university student either at London, Glasgow, or Cambridge learn what today is called even college engineering.

Thomson had never learned to make a working drawing; he designed in metal. We students could not help him with the T square and drawing board as we might have done had we received the college engineering training of today. He thought of a new instrument; a new method of accomplishing some result flashed on him, and he sketched in his pocket-book a rough indication of what he wanted constructed. I took the idea, or what I understood of it, in my head to Messrs. White, so it was not to be wondered at that alteration after alteration was necessary before the thing that was in Thomson's mind's eye became realized in metal.

The Athletic Problem

Another evidence that the serious side of the problem presented by the excessive devotion to athletics on the part of many college students is attracting the attention of college authorities, is to be found in the admirable report submitted to the trustees of Williams College at a recent meeting of the committee consisting of Messrs. Francis Lynde Stetson, Eugene Delano, and Frederick B. Jennings. The report of this committee, which was offered to the trustees of Williams College, contains the following very significant paragraphs:

“From the primary and proclaimed purpose of a college, there has been such a diversion to a secondary and subordinate incident of collegiate association as to induce the student belief

that the true college spirit is to be evoked not thru the curriculum or in interchange of ideas, but most potently in the arena of athletic sport. Such in effect has been the formal declaration of the students' publications.

"It can not be gainsaid that in the contestants are developed some of the most valued traits of manhood, such as fortitude, good-humored persistence, judgment, co-operation, and equanimity under defeat; and no wise or sympathetic friend of our youth would wish to deny them just and ample opportunity for the attainment of such ends thru such natural and time-honored methods.

"But here, as everywhere, there is in our national temperament much that tends to excess, if not to riotous exuberance. That which in moderation may be good, Americans are prone to push beyond bounds. Balance is hardly less important than movement in the rush of the outer world of affairs; and it must be sought in vain if it is not to be found or cultivated in the academic groves.

"Our college was founded and is maintained principally thru the gifts of serious-minded men and women, who have denied themselves in order that generous youth here may pursue those liberalizing studies which shall establish them as men of intellectual power and of integrity of character. These foundations have been committed for administration by this Board of Trustees, which would fail in its duty were it consciously to allow this primary purpose of the college to be thwarted by the predominance of any contrary influence. It would be the duty of the Board, if necessary, to allow the number in the college to decline until it should comprize only those observing its primary purpose, rather than to seek enlargement by the general admission or the retention of those who would be students only in name, and whose interests and ideals would be alien to those of our institution."

Professor J. J. Thomson, F.R.S., Cavendish Professor of Experimental Physics in the University of Cambridge, has been nominated President of the meeting of the British Association to be held at Winnipeg next year. The following gentlemen have been elected by the Council of the British Association to be Presidents of Sections at the meeting of the Association to be held in Dublin in September next under the general presidency of Mr. Francis Darwin, F.R.S.:

Section A (Mathematical and Physical Science), Dr. W. N.

Shaw, F.R.S., Director of the Meteorological Office. Section B (Chemistry), Professor F. S. Kipping, F.R.S., Professor of Chemistry in University College, Nottingham. Section C (Geology), Professor J. Joly, F.R.S., Professor of Geology and Mineralogy in the University of Dublin. Section D (Zoölogy), Dr. S. F. Harmer, Superintendent of the University Museum of Zoölogy, Cambridge. Section E (Geography), Major E. H. Hills, C.M.G. Section F (Economic Science and Statistics), Lord Brassey. Section G (Engineering), Mr. Dugald Clerk, M.Inst.C.E. Section H (Anthropology), Professor W. Ridgeway, Professor of Archæology in Cambridge University. Section I (Physiology), Dr. John Scott Haldane, F.R.S., University Reader in Physiology at Oxford. Section K (Botany), Dr. F. F. Blackman, F.R.S., Professor of Botany in the University of Leeds. Section L (Educational Science), Professor L. C. Miall, formerly Professor of Biology in the University of Leeds.

Professor Marshall has decided to retire from the Chair of Political Economy at Cambridge, which he has held since 1885, when he succeeded Professor Fawcett.

Professor Bosanquet will resign the Chair of Moral Philosophy in the University of St. Andrews at the end of the current academical year.

The well-known *Pädagogisches Archiv* has completed its first half century of existence, and in celebration thereof has undergone change and improvement. It will hereafter devote itself more especially to the interests and needs of the secondary schools and teachers' training institutes of Germany. Few educational publications are better worth reading than the *Archiv*.









